DEPARTMENT OF THE ARMY
BROOKE ARMY MEDICAL CENTER
Fort Sam Houston, Texas 78234-6200

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Medical Services
GUIDE FOR OBTAINING LABORATORY SUPPORT

Contents

1. PURPOSE. This pamphlet is designed to assist the medical staff of Brooke Army Medical Center (BAMC) and outside submitting stations in utilizing laboratory resources.

2. APPLICABILITY. This pamphlet applies to all direct Health Care Providers (HCP) assigned or attached to BAMC and to all submitting stations requesting services or support from the Department of Pathology and Area Laboratory Services (DPALS) at BAMC.

*This pamphlet supersedes BAMC Pamphlet 40-4, 19 July 1994, BAMC Pamphlet 40-5, 9 August 1991, BAMC Memorandum 40-138, 15 August 1996, and BAMC Memorandum 40-177, 2 March 1994.

3. REFERENCES.

a. Comprehensive Accreditation Manual for Hospitals, Joint Commission on Accreditation of Healthcare Organization, current edition.

b. College of American Pathologists Laboratory Accreditation Program Guidelines and Checklist, College of American Pathologists, current edition.

4. EXPLANATION OF ABBREVIATIONS AND TERMS. Appendix A.

5. BACKGROUND. The Department of Pathology and Area Laboratory Services is responsible for providing responsive, high quality laboratory testing in support of patient care. Use of this pamphlet will reduce ordering errors and conserve resources.

6. RESPONSIBILITIES.

a. Chief, DPALS will develop, maintain, and implement guidance for HCP to obtain laboratory support, BAMC Pamphlet 40-4.

b. Department/Division/Service Chiefs and Clinic/Hospital staff will familiarize themselves with the BAMC Pamphlet 40-4, and obtain laboratory support and service using guidelines found within the pamphlet.

c. DPALS staff will monitor current laboratory practices and when technical and/or procedural guidance change, they will develop and broadcast Laboratory Bulletins updating HCP to the new laboratory guidance.

7. GENERAL INFORMATION.

a. Location. DPALS is located on the fourth floor, Building 3600, BAMC, Fort Sam Houston, Texas. Ambulatory patient specimen collection and processing service is located on the first floor.

b. Telephone Numbers. Appendix B.

c. Laboratory Hours.

(1) The laboratory maintains 0700-1630, Monday-Friday, as normal duty hours. Routine services (ward rounds, first floor outpatient specimen collection, processing, and testing) are offered during these times. Routine services are NOT offered on weekends, federal holidays, and designated training holidays.

(2) Core Laboratory services are offered 24 hours a day, 7 days a week. When laboratory testing is required during a time other than normal duty hours, the specimen is to be collected by the requesting service and brought to the fourth floor laboratory for processing and testing.

(3) Emergency (STAT) testing is performed 24 hours a day, 7 days a week. HCP are given the opportunity to order a laboratory test using the STAT priority if the test is found on the DPALS Emergency (STAT) Test Menu (Appendix C) or any other assay after seeking Pathologist's approval. The collection and delivery of STAT laboratory specimens are the responsibility of the physician/clinic/ward. Because of their emergency or critical nature, the laboratory will not collect these specimens on morning ward rounds. ASAP is the highest priority recognized by ward round and phlebotomy room staff. STAT priority requests must be collected and transported to the laboratory by ward personnel.

d. Phlebotomy Hours.

(1) Ward Round Collection. Ward rounds are conducted at 0500 Monday through Friday (no holidays). Appropriately marked laboratory requests must be received by the fourth floor laboratory no later than 0330. Collection of specimens other than blood or collection of blood at times other than 0500 will be performed by the physician or ward personnel. Certain laboratory requests requiring special handling are not collected on ward rounds. TESTS NOT COLLECTED ON WARD ROUNDS: Ammonia, Blood Cultures, Urines, Sputum, Timed Drug Levels, Lactic Acid, and Renin.

(2) Outpatient Collection. First floor ambulatory patient specimen collection and processing service is staffed by phlebotomists and processing personnel 0700-1630, Monday through Friday to support outpatient clinic/service operations. This service is NOT offered on weekends, federal holidays, and training holidays. At times when the first floor specimen

collection service is closed, the requesting clinic/service is responsible for the collection and transportation of the sample to the fourth floor processing area.

(3) Inpatient Processing. Fourth floor inpatient specimen and processing service is staffed 24 hours a day, 7 days a week. This service supports the processing of inpatient/ outpatient samples that have been collected by ward personnel and transported to the laboratory. BAMC staff should not send outpatients to the fourth floor for routine specimen collection. The only exception to this is for administration and collection of glucose tolerance tests.

(4) Reference/Commercial Laboratory Service. The laboratory has a variety of military and commercial laboratory services for those tests not performed in-house. All specimens submitted to the laboratory processing section for a civilian referral laboratory other than the reference contracted laboratory will require a DD Form 2161, Referral for Civilian Medical Care, properly completed form. Failure to correctly fill out the DD Form 2161 may result in shipping delays. In order to ship out a specimen on the same day received the specimen must be submitted prior to 1200.

e. Request Procedures.

(1) CHCS is the primary means by which HCP submit laboratory orders. HCP submitting laboratory orders for outpatients, PreOp patients, and patients being seen in the clinic or service will use CHCS.

(2) Whenever the Hospital Information System (CHCS) is inoperative, when placing an order on an inpatient, or for locations without Order Entry capability, it is necessary for the HCP to submit the appropriate laboratory request slip. See Appendix F, Laboratory Request Forms. All specimens and accompanying request slips must be clearly and appropriately labeled. All request slips MUST be printed legibly and MUST include the following:

(a) Patient’s name (last, first, MI).

(b) Social security number (SSN) with Family Member Prefix (FMP).

(c) Ward, clinic, or requesting location.

(d) Date/time collected.

(e) Test(s) requested.

(f) Priority (ROUTINE, ASAP, PREOP, STAT).

(g) Physician’s full name (name stamp if available), physician’s last four of SSN or unique provider number, and physician’s clinic/ward/pager telephone number.

(h) Pertinent clinical information for assays requiring laboratory interpretation.

(i) Cultures must show specimen source.

(3) For wards/units without CHCS Order Entry capability, laboratory personnel place inpatient clinical laboratory test orders into the computer from DA Form 4677 (orders) or the appropriate laboratory requisition slips. These orders are manually completed on the wards or units. All outpatient or referral locations that have CHCS Order Entry capability will place the order in CHCS prior to sending a sample or patient to DPALS for collection and processing.

(4) Decentralized Order Entry using CHCS allows HCP to enter orders for ALL clinical laboratory tests, cytology tests, surgical specimens, and limited blood bank procedures. Because the blood bank module is not available, laboratory orders for blood bank transfusion products CANNOT be entered into CHCS. Orders for blood and blood products will continue to be placed exclusively from written orders. Additionally, autopsy requests will be completed in writing and not by using CHCS.

(a) At the present time, Order Entry is available for all OUTPATIENT locations.

(b) The appropriate laboratory requisition slips must be used for ordering all procedures whenever the computer system is inoperative and patient care would be compromised by waiting until the system is again available for use. If the computer downtime is known to be one hour or less, please refrain from placing manual orders unless absolutely necessary for patient

care.

(c) A DD Form 2161, Referral for Civilian Medical Care, must be submitted when ordering tests which are not in the automated Laboratory Test File and the testing is only performed by a commercial reference laboratory. The DD Form 2161 will be completed and submitted by the requesting HCP. DPALS will review and validate the request and coordinate the request with the appropriate commercial laboratory.

f. Laboratory Priorities. The following four processing priorities are used by DPALS:

(1) STAT. The priority STAT will be used ONLY when a patient's life is in danger, or in a situation wherein immediate life-saving treatment is pending the laboratory result. This priority should rarely be used. Rule of thumb: The patient's status should be that or equal to being on the SI or VSI (seriously ill or very seriously ill, respectively) list or in an unstable state in the ED (Emergency Department). Test results submitted with STAT priority will be rigidly managed with a goal to keep turnaround-time (TAT) to one hour or less. ONLY the tests listed in Appendix C may be ordered in CHCS with a STAT priority.

(2) ASAP. The priority ASAP is used only in a situation wherein treatment of a patient is urgent and the results are required as soon as possible to alleviate patient suffering and to ensure the patient's well being. This category will normally be used for the typical ED/ICU request or for requests from Outpatient Clinics when the patient must wait for a laboratory result before treatment is initiated or modified by the appropriate HCP.

(3) PREOP. These tests are given priority by being placed ahead of routine tests and will be available on a same-day basis. PreOp requests and specimens should be received NLT noon the day before surgery.

(4) ROUTINE. This is the usual category for most laboratory orders. Specimens with this priority will be managed in the most efficient way possible. Expected TAT for this priority are provided in the laboratory test list.

g. CHCS Order Entry. See the current Laboratory pocket reference provided by the Composite Health Care System.

h. Mail In Specimens.

(1) Medical Treatment Facilities (MTFs) on-line with CHCS will process laboratory requests in CHCS. CHCS transmittal lists will be used and accompany all shipments.

(2) Individual request slips must be completed for EACH test/panel requested as previously explained in paragraph 7. e. (2). Each slip must be clearly stamped with the name and address of the submitting activity. HSC Form 209-R, Shipment Checklist, will be submitted in duplicate for each shipment. A copy will be returned immediately to acknowledge receipt and advise the shipper of any irregularity(ies) found.

(3) Each specimen container must have an appropriate label that includes the patient’s full name and FMP/SSN. Specimens will be placed in two ziplock bags to prevent spillage/leakage.

i. Specimen Collection, Handling, and Transport.

(1) Laboratory tests reveal and contribute vital information about a patient’s health. Correct diagnostic and therapeutic decisions rely, in part, on the accuracy of test results.

(2) Unlabeled samples will not be tested. The accuracy of test results is dependent on the integrity of the specimen (patient preparation, specimen collection, and handling). In all settings in which specimens are collected and prepared for testing, laboratory and health care workers must follow OSHA and local infectious disease regulations and policies. The specimen collection container should be labeled with the following information:

(a) Patient’s complete name.

(b) Patient’s complete SSN with FMP.

(c) Date and time of specimen collection.

(d) Initials of individual who collected the specimen.

(e) Specimens for compatibility testing require special labeling. Refer to BAMC Memo 40-84 (Procedures for the Use of Blood and Blood Products).

(3) Because the potential for infectivity of any patient's blood and body fluids is unknown, Blood and Body Fluid Precautions required by OSHA will be adhered to for all patients. These precautions, called Universal Precautions, will be followed regardless of any lack of evidence of the patient's infective status.

(4) The practice of Universal Precautions eliminates the need for using specific warning labels on specimens obtained from patients infected with Hepatitis B virus or Human Immuno-deficiency Virus (HIV). All specimens must be treated as if infectious and capable of transmitting a serious infectious disease.

(5) Upon being collected from the patient, all specimens should be placed into a leak-proof primary container with a secure closure. Care must be taken by the person collecting the specimen not to contaminate the outside of the primary container.

(6) Before being transported to the laboratory, the primary container must be placed into a secondary container that will contain the specimen if the primary container breaks or leaks in transit to the laboratory. Plastic bags with zip-lock or twist-tie closures may be used as secondary containers.

(7) Laboratory requisition slips (or computer-generated orders) should be protected from contamination and separated from the primary container. Contaminated requisition slips will not be accepted. The submitting location will be notified and requested to replace any contaminated slip.

(8) Preparation. Prior to each collection, review the laboratory's specimen requirement(s). (See Clinical Pathology Service Test Manual, Appendix D.) Note the proper specimen to be collected, the amount, the procedure to be used, the collection material, and the storage and handling requirements.

(a) Preparing the Patient. Provide the patient in advance with appropriate collection instructions and information on fasting, diet, and medication restrictions when necessary.

(b) Preparing the Specimen. To avoid incorrect identification, label the specimen container and use adhesive specimen label immediately following the collection. Confirm the identification in the presence of the patient. Process the specimen as required and store properly. During specimen collection, preparation, and submission, there is a much greater possibility of clerical error than during the actual testing or examination of the specimen. Errors in storage and handling compromise the integrity of the specimen and, thus, the test results.

(c) One specimen should be submitted for each test requested. When a single tube is collected for a multiple test request, Specimen Processing Section will split the specimen and ensure patient demographics are accurately transcribed to each pilot tube. Ensure sufficient sample is provided in each for the desired test.

(9) Specimen Rejection (General Guidelines). The rejection of unacceptable specimens and the special handling of sub-optimal specimens will be considered very carefully and on a case-by-case basis by the section supervisor. If a specimen must be rejected, the requester will be notified and advised of the reason(s) and a comment will be entered in the laboratory report. Specimen may be rejected in the following situations:

(a) Mismatched specimen and slip - submitting service will be notified and given the opportunity to correct this situation.

(b) Unlabeled specimens - submitting service will be notified and given the opportunity to resubmit.

(c) Contaminated specimen or slip - submitting service will be contacted and given the opportunity to provide a new specimen or slip.

(d) Improper specimen container used for requested assay.

(10) Avoid Common Errors. Careful attention to routine procedures can eliminate most of the errors outlined in this section. The complete blood collection system and other collection materials provided by the laboratory can maintain the integrity of the specimen only when they are used in strict accordance with instructional materials. The following are General Specimen Collection Errors:

(a) Some of the common errors affecting all types of specimens include:

- Insufficient quantity (ensure collection container is filled to the appropriate level).
- Failure to use correct container for appropriate specimen preservation.
- Inaccurate/incomplete patient instructions prior to collection.
- Failure to label specimen correctly and to provide all pertinent information.
- Failure to tighten specimen container lids, resulting in leakage and/or contamination of specimens.
- Failure to provide legible physician's full name (name stamp if available), physician's last four of SSN or unique provider number, and physician's clinic/ward/pager telephone number so that results can be sent to the proper provider.

(b) Serum Preparation Errors (Most Common):

- Failure to separate serum from red cells within 30 to 45 minutes after venipuncture.
- Hemolysis - RBCs damaged and intracellular components spilled into serum.
- Turbidity - cloudy or milky serum sometimes due to patient's diet.

(c) Plasma Preparation Error (Most Common):

- Failure to mix with proper additive immediately after collection.
- Hemolysis - damage to RBCs.
- Incomplete filling of the collection tube, thereby creating a dilution factor excessive for total specimen volume.
- Failure to separate plasma from cells within 30 to 45 minutes after venipuncture.

(d) Urine Collection Errors (Most Common):

•Failure to obtain a clean-catch, midstream specimen.
•Failure to refrigerate specimen.
•Failure to provide a complete 24-hour collection or other timed specimen.
•Failure to add proper preservative to the urine collection container after receipt of the specimen, prior to aliquoting.
•Failure to provide a sterile collection container and to refrigerate specimen when bacteriological examination of the specimen is required. Exception: Cerebrospinal Fluid (CSF), do not refrigerate. Failure to tighten specimen collection lids, resulting in leakage of specimen.
•Failure to provide patients with adequate instructions for 24-hour urine collection.

(e) Hemolysis. In general, grossly or even moderately hemolyzed blood specimens are not acceptable for testing. Hemolysis occurs when the red blood cells rupture and hemoglobin and other intracellular components spill into the serum/plasma. Hemolyzed serum/plasma is pink or red, rather than the normal, clear, straw color.

(f) Vacuum Tubes Containing Anticoagulants. When using vacuum tubes containing anticoagulants and preservatives--
•Tap the tube gently at a point just below the stopper to release any additive adhering to the tube or stopper.
•Permit the tube to fill completely to ensure the proper ratio of blood to additive.
•To ensure adequate mixing of blood with anticoagulant or preservative, use a slow, rolling wrist motion to invert the tube gently five or six times. Rapid wrist motion or vigorous shaking contributes either to small clot formation or hemolysis and fails to initiate proper mixing action.
•Check to see that all the preservative or anticoagulant is dissolved. If any preservative powder is visible, continue inverting the tube slowly until the powder is dissolved.
•If multiple samples are drawn, invert each as soon as it is drawn. DO NOT DELAY.

(g) Vacuum Tubes Without Anticoagulants. Permit the tube to completely fill when using vacuum tubes not containing anticoagulants or preservatives.

(h) Turbidity (Lipemic Serum). Lipid serum/plasma may not be a true indicator of the patient's physiological state. It is important to obtain a representative specimen that will help the physician differentiate between transient dietary lipemia and chronic lipemia caused by other factors. To avoid dietary induced high lipid levels prior to testing, many physicians require patients to exclude the high fat foods from their diets or to fast 10 to 14 hours prior to specimen collection. For morning specimen collection, the laboratory recommends that the patient be required to fast from 2000 on the previous evening.

j. Laboratory Critical (Panic) Values.

(1) A critical laboratory value is defined as, "a value at such variation with normal as to present a pathophysiologic state that is life-threatening unless some action is taken in a very short time and for which an appropriate action is possible." It is a laboratory responsibility to communicate these values immediately and flawlessly to the responsible clinician(s).

(2) Whenever possible, CHCS will be programmed to identify and report critical values. Tests whose results are critical will cause an IMMEDIATE RESULT REPORTING (IRR) BULLETIN to be automatically generated. The IRR is sent to the HCP entered in CHCS as the ordering physician.

(3) Telephonic notification of critical values will also be made. CHCS does not relieve the laboratory of its responsibility to ensure that all critical values are reported. Whenever possible, the requesting physician will be contacted. If that person is unavailable, another clinician or nurse at the requesting location will be notified.

(4) If the clinic is closed, the Pathologist-of-the-Day (POD) will be contacted to determine the staff on call for the specific clinic. The panic values will be provided to the staff on call for interpretation.

k. Retrieval of Laboratory Results.

(1) All results for tests ordered STAT, all tests whose certified results exceed laboratory "CRITICAL VALUES", and all

results that are amended cause an IMMEDIATE RESULT REPORTING (IRR) BULLETIN to be automatically generated in CHCS. The IRR Bulletin is sent to the HCP entered in the system as the ordering physician. The bulletin informs the user that Immediate Laboratory Results are waiting and instructs the user to use the IRR option to retrieve the results.

(2) Results for tests ordered with PREOP, ASAP, or ROUTINE priorities are NOT automatically printed at the ordering location.

(3) The electronic patient file is considered the official file. HCP should review patient results in CHCS. There are no laboratory cumulative reports printed.

l. Misrouted Laboratory Results.

(1) HCP who receive critical laboratory results that they have not ordered should bring the issue to the immediate attention of the pathology resident on call. The pathology resident will take appropriate steps to notify the correct provider of the critical laboratory results.

(2) HCP who receive routine non-critical laboratory results that they have not ordered should bring the issue to the attention of the DPALS computer systems analyst. The analyst will take appropriate steps to determine the department from which the order came and will forward the results to that department’s chief.

8. ANATOMIC PATHOLOGY SERVICE. The Anatomic Pathology Service encompasses the sections of Cytology, Surgical, and Autopsy Pathology. The service is centered on the northeast corner of the fourth floor, and is open routinely 0730-l630 Monday through Friday. A pathology resident and a staff pathologist are on call for problems arising during non-duty hours. A pathology on call roster is distributed monthly to all clinical services.

a. Cytology.

(1) General. The following guidelines for the handling and collecting of cytologic specimens have been developed by the Cytology Section in the Anatomic Pathology Service to help the nursing staff and physicians. If these steps are followed, the

laboratory will be able to give meaningful diagnostic information. Many of the procedures are required in accordance with our certifying agencies, including JCAHO and CAP.

(2) Location. The Cytology Section is located in Anatomic Pathology Service, fourth floor, Rooms 427-4 and 427-8A. The telephone numbers are 9l6-3130/1716.

(3) Submitting Specimens to the Laboratory.

(a) Labeling of Specimens. All specimens must be submitted in a properly labeled container. Labels must include the patient's name, SSN, FMP, HCP name, and hospital area, clinic, or ward. All slides submitted (GYN smears, bronchial brush smears, nipple smears, FNA smears, etc.) must be identified by writing the patient's name, last four digits of SSN, and FMP on the frosted end with a #3 lead pencil or solvent resistant pen.

(b) Laboratory Requests. All outpatient cytology specimens (GYN and non-GYN specimens) must have a CHCS Order Entry placed by the submitting HCP before the specimen is received in the cytology section. All inpatient cytology specimens must be accompanied by a properly and completely filled out Standard Form (SF) 541 (GYN specimens, Pap smears) or SF 515, Tissue Examination Form, (non-GYN specimens). In accordance with JCAHO requirements, all requests must be identified with the patient's full name, SSN, FMP, age or date of birth, sex, date of specimen collection, submitting HCP name (legible), hospital area, clinic, or ward, anatomic site/source, and pertinent clinical information and reason for examination. Requests for GYN specimens must also include date of last menstrual period, menopausal status, current pregnancy status, oral contraceptive or IUD use, hormone therapy, history of hysterectomy, and date/results of previous GYN cytology diagnoses. Non-GYN specimen orders must also include priority requested and HCP provider's pager or phone number.

(c) CHCS Order Entry Procedures for GYN Cytology Specimens. Orders for GYN specimens (Pap smears) will be entered into the CHCS ORDER TYPE field by requesting LABORATORY for order type. At the Select LABORATORY TEST prompt, either enter AP to display a pick-list (then pick AP: Pap smear Cytologic GYN) or enter AP: PAP. Follow the request through to

completion by entering the data needed for Pap smear examination. For GYN specimens (Pap smears), all submitting clinics are required to complete a BAMC Form 805, Contributor's List. This form should be completed in duplicate (original to AP and copy for clinic's record).

(d) CHCS Order Entry Procedures for non-GYN Cytology Specimens. Orders for non-GYN specimens (e.g. FNAs, urines, respiratory specimens, fluids, etc.), will be entered into the CHCS ORDER TYPE field by requesting LABORATORY for order type. At the Select LABORATORY TEST prompt, either enter AP to display a pick-list (then pick AP: Cyto non-GYN Cytologic non-GYN) or enter AP: CYTO. Then follow the same steps for Order Entry of routine surgical specimens. Pertinent clinical information to include history, preoperative, operative, and postoperative findings are required. If there are multiple non-GYN specimens obtained from different sites on the same patient, each specimen site should have a separate order entry. All non-GYN specimens should have the submitting HCP's pager or phone number included in the clinical information provided.

(e) Delivery of Specimens. Duty hours – Specimens are to be delivered to Cytology Laboratory, Room 427-8A. Non-duty hours - Cytology specimens should be delivered to the main Specimen Processing area, fourth floor, Room 429-8. Non-fixed specimens should be refrigerated at 4 degrees Centigrade until they can be delivered. (Check below for specific specimen site instructions.) It is strongly recommended that specimens be delivered to the laboratory as early in the normal duty day as possible to enable processing of specimens on the same day (before 1500). Specimens will not be accepted without acknowledgement by a laboratory technician.

(f) Handling of Improperly Submitted Specimens. All specimens submitted which are labeled improperly or labeled in a different manner other than that required on the SF 54l, SF 5l5, or CHCS Order Entry request will be held unprocessed until the proper requests are corrected or completed by the submitting HCP. Unlabeled specimens will not be accepted for processing or examination. The submitting clinic and/or HCP will be notified with an explanation as to cause for unprocessed or rejected specimens along with a comment on specimen disposition.

(g) Fixation of Specimens Prior to Submission to

Laboratory. As a general rule, optimal cytologic diagnosis is made on fresh, rapidly processed specimens, without addition of a fixative solution (alcohol). However, certain specimens and situations require fixation at the bedside or in the clinic prior to submission to the laboratory. When required, a solution of 50% ethanol with 2% carbowax (Saccomanno's fixative fluid - lime green in color) is recommended. The fixative is available from the Cytology Section on the fourth floor, (Room 427-8A) or at the specimen processing area on the fourth floor (Room 429-8). For body fluid specimens, an equal volume of this fixative may be added to the specimen (l:l ratio specimen to fixative) and the specimen refrigerated at 4 degrees Centigrade and submitted to the laboratory as soon as possible. Guidelines for when to utilize this fixative are detailed in the sections that follow under specific specimen requirements. Additional information can be provided by the specimen processing area located on the fourth floor.

(h) Storage. If an unfixed specimen is obtained when the laboratory is closed, it must be refrigerated at 4 degrees Centigrade; however, such a case should be the exception. An unfixed specimen can be refrigerated up to 24 hours without addition of fixative. More than 24 hours delay in submission requires addition of an equal volume of Saccomanno's fixative. If a question arises as to how a specimen should be handled, please telephone Cytology at 916-3130/1716; or, contact the on call Cytotech, pager # 513-7503 or Pathologist-of-the-Day, pager #513-0626 after duty hours. Normal saline is NOT recommended.

(i) Gastrointestinal Tract Brushings or Washings. Prepare patients for endoscopy as usual. Any visible lesions (esophageal, gastric, small intestinal, colonic) can be brushed or lavaged. Smear brush samples on clean glass slides labeled with patient's name, last four digits of SSN, and FMP. Allow slides to air-dry, and then submit to the Cytology Laboratory, Room 427-8A, without delay. The disposable brush tip ("brush cut") can be placed into a prefilled tube of Plasmalyte or Cytolyt solution (available from the Cytology Laboratory), for preparation of additional fluid-based ThinPrep monolayer smears. Gastrointestinal tract washings or lavages are poured from the trap bottles and placed into sterile specimen cup(s) labeled with the patient's name, SSN, specimen source, and type of specimen (e.g., washing). Any washing/lavage specimen should be

delivered immediately to the Cytology Laboratory (Room 427-8A) without fixative.

(j) Bronchial Washings/Lavages. Prepare patients for bronchoscopy in the usual manner. Fill the bronchus with a balanced salt solution (Plasmalyte or equivalent). Normal saline is NOT recommended. Aspirate and re-instill the solution several times. Aspirate all the fluid from the bronchus, label, and send immediately, without fixative, to the Cytology laboratory. If there is more than a one-hour delay anticipated in forwarding specimen to the laboratory, place the fluid in Saccomanno's fixative immediately after collecting specimen with three volumes of fixative to one volume of washing/lavage specimen.

(k) Bronchial Brush Specimens. Prepare patients for bronchoscopy in the usual manner. Any visible lesions can be brushed. Immediately place the brush with specimens in a prefilled tube of balanced salt solution (Plasmalyte or equivalent) or Cytolyt. Normal saline is NOT recommended. Cytolyt solution is available from the Cytology Laboratory. Agitate brush vigorously to dislodge specimen. Cut brush off catheter and submit in solution ASAP (within one hour) to the Cytology Laboratory.

(l) Post-Bronchial Sputum. Give the patient a sputum cup before the bronchoscope is withdrawn. All sputum expectorated after bronchoscopy and for the next one hour should be collected in Saccomanno's fixative. Send the specimen to the Cytology Laboratory.

(m) Sputum. Upon awakening in the morning, patient should be instructed to cough deeply and expectorate into a sputum cup filled with Saccomanno's fixative. Any additional sputum from deep coughing after the initial specimen may be included in the sample. For maximum diagnostic accuracy, repeat for three consecutive days. Send specimen to Cytology Laboratory.

(n) Pap Smear (Cervical-Vaginal Cytology). Prior to obtaining smear, identify slide by writing patient's name, last four digits of SSN and FMP on the frosted end with a #3 lead pencil. Obtain cervical scraping from complete squamocolumnar junction by rotating spatula 360 degrees about the circumference

of the cervical os and ectocervix. Utilize endocervical cytobrush or aspirate to obtain endocervical specimen. Spread material collected on the spatula evenly over glass slide with a single smooth stroke motion. Spread the brush material directly over the previously spread spatula sample by gently twirling the handle. Spray fix the slide IMMEDIATELY with Pap fixative (Cyto-fix, Pro-fix, etc.). The nozzle of the spraying apparatus should be held approximately 8-10 inches from the slide. For cytohormonal evaluation, a lateral vaginal wall scraping smear from the middle third of the vagina is required. For evaluation of possible vaginal adenosis, the vagina should be free of mucus before smears are made.

(o) Cerebrospinal Fluid Cytology (CSF). Perform spinal tap in the usual manner. Collect a CSF sample in a separate container for cytologic examination. As much volume as possible should be obtained. Send the sample immediately (within one hour) to the Cytology laboratory without fixative. Samples taken during non-duty hours, if less than 24 hours, should be refrigerated unfixed and taken to the Cytology Section on the following day. If transportation to the laboratory is delayed beyond 24 hours, mix with equal volume of Saccomanno's fixative and send to the laboratory on the next duty day. Samples for cell count, chemical, microbiological studies and/or flow cytometry should be delivered to the main Specimen Processing area, fourth floor, Room 429-8.

(p) Breast specimens (nipple discharge and breast cyst needle aspiration). For obtaining specimen from a nipple discharge, gently grip the subareolar area and nipple with thumbs and forefinger. When secretion occurs, allow only a pea-sized drop to accumulate. Touch a clean, labeled glass slide to the nipple and withdraw slide quickly. Repeat procedure until all secretions from nipple are collected on two or more slides. Smears of nipple discharge should be air-dried and submitted unfixed without delay to the Cytology Laboratory. Do not spray or wet fix the slides. Aspiration specimens of breast cyst fluid should be submitted unfixed to Cytology laboratory. Refrigerate, if after working hours, and submit in the morning. (Also refer to instructions for "Fine Needle Aspirations," below.)

(q) Fine Needle Aspirations (FNA). Aspiration biopsies should be coordinated with the Cytology Laboratory (916-1716)

and/or Medical Director, Cytology (916-4224) for optimal processing and correlation with clinical and radiographic findings. Cytotechnologist and/or pathologist assistance will be provided upon request. FNA biopsies should be scheduled ahead of time with the Cytology Section (916-1716), preferably with at least one day's notice. Due to processing requirements, assistance for FNA's cannot be provided after 1600 (regular duty hours). Any FNA assistance needed during non-duty hours requires coordination with the Pathologist-of-the-Day (POD) at pager # 513-0626.

FNA Equipment	A FNA cart with all the necessary equipment and material is available which allows performance of the procedure in any location of the hospital (clinic, inpatient ward, radiology suite, operating room, etc.). A cytotechnologist is available during normal duty hours to assist in preparing smears and/or render a determination of specimen adequacy. If necessary, a preliminary diagnosis can be rendered by a pathologist, only, during or immediately after the procedure. Pathologists are also available to perform FNA's on superficial lesions.
Informed Consent	The patients must be counseled about the procedure and any associated risks (infection, bleeding, bruise, pain, swelling, and damage to vital structures). In addition, limitations of representative sampling, to include non-diagnostic or inadequate samples, and the alternative of open tissue biopsy should be discussed. A written informed consent must be completed (SF 522) – refer to BAMC Memo 40-71.
Procedure for FNA of Superficial Palpable Masses	The area to be aspirated is examined and cleansed with alcohol pads. A local anesthetic may or may not be used. In general, superficial palpable masses are aspirated using small gauge needles (25 or 23 gauge, 5/8, 1 or 1 ½ inch long), attached to a 10 or 20 cc syringe in a plastic Inrad syringe holder or metal Cameco holder. After proper mobilization of the mass, the needle is inserted, suction is applied and maintained, and the needle is moved in and out of the mass in short, rapid strokes.

	When aspirate material (including blood) is visible in the hub of the needle, release suction and remove the needle from the mass and skin. If no obvious material is seen in the hub of the needle, continue the aspiration attempt for at least 15 seconds, then release the suction and remove the needle. Gentle pressure should be applied to the aspiration site. Three to five separate aspiration passes should be performed for each palpable mass being evaluated by FNA. This will improve sampling adequacy.
Slide Staining/Needle Rinsing	One air-dried slide preparation is stained with Diff-Quik solution (Romanowsky-type stain) for immediate review. The other slide is submitted to the Cytology Laboratory for rehydration and subsequent fixation in 95% alcohol and Pap staining. The aspiration needle is rinsed in CytoLyt solution which is sent for preparation of ThinPrep monolayer smear (Pap-stained) and, if enough cellular material is present in the rinse fluid, a paraffin-embedded cell block preparation (hematoxylin and eosin stain). When the differential diagnosis includes lymphoproliferative disorders, flow cytometry for lymphoid surface marker analysis can be performed on any material rinsed into a vial of pink-colored RPMI sterile solution (provided by the Cytology Laboratory). In addition, aspiration material can be submitted in sterile saline for culture, or glutaraldehyde for electron microscopy (prior coordination with Cytology Laboratory is required in the request of a culture or EM).
Smear Preparation	Place bevel of needle directly on one of the glass slides, in approximately the center of the slide. A small drop of fine needle aspirate material is expressed onto the glass slide. Lay another slide parallel to and on top of the first so that the aspirate spreads to create a thin smear. Air-dry both slides completely.

(r) Skin Scrapings or Mucosal Vesicular Fluid (Tzanck Cell Preparation). Submit two smears, one spray fixed with Pap fixative (Cyto-fix) and one air dried for Diff-Quik staining.

(s) Buccal Smears. Call Cytology Section, 916-3130/ 1716.

(t) Effusions and Fluids. Fluids yield best cytologic diagnosis if the specimen is immediately processed without fixation. If a delay of more than one hour is anticipated, the specimen must be refrigerated at 4 degrees Centigrade. Delays of more than 24 hours require that the specimen be fixed with equal amounts of Saccomanno's fixative, refrigerated, and sent to the Cytology Section on the morning of the next duty day. Even if the fixative is added to the fluid, it must still be refrigerated.

(u) Abdominal Cavity Washings. Vigorously wash appropriate areas (diaphragm colic gutters, cul-de-sac, etc.) with adequate volumes of physiologic balanced salt solution (Plasmalyte or equivalent). Normal saline is not recommended. Aspirate washing and submit immediately (within one hour) to the laboratory. If more than a 1-hour delay is expected in delivery to the laboratory, mix washing with an equal volume of Saccomanno's fixative and refrigerate at 4 degrees Centigrade until transported to the laboratory.

(v) Voided Urine. Patient should be well hydrated prior to obtaining specimen. Collect a clean catch specimen after the first morning sample has been voided (50-100 mL of midstream urine) and immediately mix with an equal volume of Saccamanno's fixative and refrigerate at 4 degrees Centigrade until submitted to the laboratory. Alternatively, the specimen can be submitted fresh (unfixed) to the laboratory within one hour after collection. 24-hour urine specimens or those obtained from a Foley catheter bag cannot be evaluated cytologically.

(w) Bladder or Ureteral Washing/Barbotage. Washing/ barbotage should be performed with an adequate volume of physiologic balanced salt solution (Plasmolyte or equivalent). Normal saline is not recommended. After obtaining the specimen, mix with an equal volume of Saccomanno's fixative and refrigerate at 4 degrees Centigrade until submitted to the

laboratory. Optimal diagnostic evaluation requires simultaneous submission of voided urine on a well-hydrated freely-voiding patient immediately prior to any instrumentation procedure.

(x) Cytogenic Studies. Call Bone Marrow Laboratory, 916-2232/2043.

(y) Any specimen amenable to cytological study will be accepted by Cytology Section. If questions arise as to how a specimen should be handled, please telephone Cytology at 916-3130/1716. Unusual cases should be coordinated with the Chief of the Cytology Section (916-4224).

b. Surgical Pathology.

(1) All tissue removed from patients at this institution must be submitted to the Anatomic Pathology Service for examination. Tissue should be placed in a 10% formalin solution unless special procedures are required (i.e., frozen sections, lymph nodes, etc.) Specimen containers must be labeled properly with the patient's hospital medical card and contain the following items:

- Patient's name, SSN, and registration number.
- Patient's location (ward or clinic).
- Physician's name.
- Clinic's telephone number or physician's pager number.
- What the specimen represents (e.g., "liver biopsy").

(2) If an order has not previously been placed into CHCS, a single copy of the Tissue Examination Form (SF 5l5) should accompany the specimen for frozen sections or other special procedure and must include adequate clinical information to aid the pathologist in making an accurate and rapid diagnosis. SF 5l5 must be stamped with the patient's hospital medical card and must contain the same information as listed above in paragraph 8. b. (1). All handwritten information must be clear, precise, and legible. Most importantly, an accurate UCA code and clinic/service where the specimen is originating should be clearly indicated on SF 515.

(3) Surgical Pathology reports (routine, noncomplicated cases) are completed within two working days (48 hours), with cases complicated by special procedures such as electron

microscopy, special stains, decalcification, or extensive consultation taking longer. Inquiries concerning status of cases will be facilitated by knowledge of the date the specimen was accessioned, the accession number, and the Pathology resident involved in the case. Inquiries should be directed to the Pathology Medical Records Section, 916-5303/5162/4208. It is emphasized that definitive therapy or invasive diagnostic procedures predicated by the results of the surgical biopsy should be taken only after a final written Surgical Pathology report is in hand.

(4) All slides and tissue submitted to the Anatomic Pathology Service are the medical and legal responsibility of the Anatomic Pathology Service and, therefore, require stringent control to maintain the integrity of our files. Specimen carriers from the clinics and the operating rooms should bring the unit's specimen log book/ledger that will be reviewed, checked against the specimen on hand, and signed for by the DPALS technician located in the grossing room. The technician will verify that each sample is appropriately labeled and that a proper surgical order accompanies each. No sample will be accepted by DPALS without logbook/ledger verification. The DPALS control over these materials must also comply with requirements of the l974 Privacy Act. Physicians are required to sign for all slides borrowed from the Service's files and must return them promptly.

(5) All patients admitted to BAMC for therapy (particularly for cancer therapy) based on a tissue diagnosis rendered at another institution must have a tissue diagnosis from BAMC Anatomic Pathology based on a review of the outside slides and tissue examination report (IAW BAMC Memo 40-151).

(6) To request review of outside slides by BAMC, submit a completed SF 5l5, to include the patient's name, age, SSN, type of specimen, date tissue was obtained, and referring hospital. Completed DD Form 2005 (Privacy Act statement) signed by the patient must accompany the SF 5l5. BAMC Anatomic Pathology will then request the material and upon its arrival will render a tissue examination report and will return the material to the original contributor. If the patient arrives at BAMC with outside slides, they should be submitted to the Anatomic Pathology Service with a copy of the outside report, if available (for gross information to document the accuracy of the

slides), and a completed SF 5l5 requesting review of this material.

(7) Special Procedures.

(a) Intraoperative Consultations. Tissue specimens should be taken to the Laboratory in a fresh state. The purpose of the frozen section is to assist the surgeon in making intraoperative or immediate postoperative decisions on patient management. Frozen sections for reasons other than immediate therapeutic decisions are strongly discouraged, particularly when only small pieces of tissue are available for examination. Diagnosis demanding evaluation of subtle microscopic changes cannot be made with certainty on frozen sections. Furthermore, the process of freezing induces severe cellular artifacts that usually impair the evaluation of permanent sections. Under normal circumstances, frozen sections will not be performed on lymph nodes suspected of harboring a lymphoproliferative disorder. The SF 5l5 sent with tissue for frozen section must contain adequate information and the exact question that is expected to be answered by the procedure; this will aid the pathologist in arriving quickly at the correct diagnosis and shorten patient's anesthesia time. If multiple specimens from the same surgical event are to be sent at different times, carbon copies of the SF 5l5 should be utilized as follows: record the specimen and source on the original (front page) for each specimen; send a carbon copy of the document with each additional specimen; and submit the original SF 5l5 with the final specimen(s). This will ensure that all specimens are properly identified and will aid in preventing errors in specimen control.

(b) Lymph Nodes. Lymph nodes removed for diagnostic evaluation should be brought immediately to Anatomic Pathology Service in the fresh state wrapped (not suspended) in saline-wet gauzes (without fixative). This is essential. Whenever bacteriologic or fungal cultures are desired, a portion of the lymph node should be removed in a sterile manner by the surgeon and placed in an appropriate container for microbiologic studies before the remainder of the node is delivered to the pathologist. Studies that can be performed on lymph nodes received in the above manner include electron microscopy, histochemistry, flow cytometry, immuno-fluorescence, and light microscopy, and touch preparations. Delay in handling lymph

nodes can result in a degree of autolysis that renders the material diagnostically inadequate.

(c) Muscle and Nerve Biopsies. Muscle specimens are handled in a unique manner. To obtain maximum benefit (histochemistry, light, and electron microscopy) portions of the tissue are placed in formalin, in fixative for electron microscopy, and the remainder is flash frozen. To ensure an adequate specimen for proper handling, it is necessary to notify the Anatomic Pathology resident on call 24 hours prior to the biopsy procedure. The pathologist will provide special muscle clamps and instructions and will help in selecting the site for the biopsy. Nerve biopsies require special handling, including light and electron microscopy, teasing, and flash-freezing (in certain cases). The pathology staff will take care of the specimen right after it has been obtained; and coordination with the pathologist, preferably 24 hours in advance, is necessary to assure proper preservation and processing of the biopsies.

(d) Renal Biopsies. Electron microscopy (EM), Immunofluorescence Microscopy (IFM), and light microscopy are routinely performed on all renal biopsies. It is imperative that the special fixatives for EM and IFM be available at the time tissue is removed from its blood supply and that the biopsy be placed into the fixative IMMEDIATELY. Personnel from the Histology Section are available for assisting in the collection and fixation of specimens, and should be contacted at least 4 hours (preferably 24 hours) in advance of the biopsy. For scheduling of Renal Biopsies, call the Histology Section, 916-4419. A completed Renal Biopsy Clinical History Form should be submitted with every renal biopsy in addition to the other required documents.

(e) Spleens. On all spleens that are to be removed for other than trauma or incidental reasons, the Anatomic Pathology Service should be notified in advance of the procedure. The spleen should be handled in a manner similar to diagnostic lymph node biopsies and delivered immediately to Anatomic Pathology Service in the fresh state. Spleens removed as incidental specimens in other operations or removed for splenic trauma should be handled as routine surgical specimens and placed in formalin fixative.

(f) Estrogen/Progesterone Assays (ER/PR). Estrogen and progesterone receptor studies will be performed by the immuno-histochemical method at the BAMC Histology Laboratory. Request for quantitative assay of ER/PR should be prearranged with the Histology Laboratory.

(8) Electron Microscopy (EM) and Tissue Immuno-fluorescence Microscopy (IFM). The Electron Microscopy Section of the Anatomic Pathology Service is inactive; however, specimens for EM/IFM are still submitted to Histology, BAMC and will be processed at WHMC. All renal biopsies are examined routinely; in addition, any other tissue or specimen of unusual interest can be processed for EM and IFM. These special microscopy procedures require special handling and fixation of the tissues submitted.

(a) EM specimens must be cut into one mm^3 pieces and immediately placed into a special EM fixative (1% Glutaraldehyde).

(b) IFM specimens must be placed directly into a special fixative (Zeus tissue fixative) which preserves the reactivity of immunoglobulins. Although fixative for EM is available in Anatomic Pathology Service at BAMC, persons who are to perform biopsies on which EM and/or IFM may be useful should contact Histology Section personnel (916-4419) or the Medical Director of Surgical Pathology (916-3755) prior to the biopsy in order to coordinate activities and ensure proper handling of the specimens. Routine formalin fixation is UNACCEPTABLE for EM and IFM. It is requested that all tissues submitted for EM and/or IMF studies be labeled properly with the following information:

- Patient’s name and SSN.
- Description (what the specimen represents).
- Requesting physician’s name.
- Exact time of excision.

(c) Specimens must be accompanied by properly completed SF 5l5 (Tissue Examination Form). In any case where there is doubt as to the value of EM or IFM, the physician should feel free to consult with Medical Director of Surgical Pathology Service (916-3755).

(d) Renal Biopsies – See Surgical Pathology, Special Procedures, paragraph 8. b. (7) (d).

c. Autopsy Service.

(1) Autopsies are performed in the Anatomic Pathology Service. Indications include clarification of cause of death, manner of death, delineation of extent of disease, evaluation of the effects of therapy, and medicolegal reasons. Permission for autopsy is generally obtained by the attending physician. After the permission form (SF 523) has been signed by the legal next of kin, it must be sent to the Casualty Clerk in the Patient Administration Office for authentication.

(2) For those deaths in which there is a question whether or not the Bexar County Medical Examiner has jurisdiction, the attending physician should contact the Patient Administration Office (916-5345) during duty hours. During non-duty hours and on weekends, the AOD or the Medical Examiner's Office (615-2111) may be consulted. If the Medical Examiner has jurisdiction, he may either assume responsibility for the case or relinquish responsibility to BAMC.

(3) Before Anatomic Pathology can schedule an autopsy, both the patient's complete chart and an authenticated autopsy permission must be received. Scheduling of autopsies is at the discretion of the Anatomic Pathology Service. It is our policy to perform autopsies during normal duty hours, Monday through Friday. If there is a need for an autopsy during times other than those listed above, the pathology resident on call should be notified. Autopsies cannot be performed until autopsy permission is authenticated. This stipulation also applies to postmortem needle biopsies.

(4) Physicians requesting autopsies are encouraged to contact the physician performing the examination to provide information as to the questions expected to be answered by the autopsy. Attendance at the autopsy by the requesting physician is also encouraged, and upon request (916-3755/4419), the ward or physician will be notified about the time of postmortem examination.

(5) The Preliminary Autopsy Report of Death and the final autopsy report are submitted directly to the Patient Administration Division and the chief of the service attending the patient. The Preliminary Report is submitted within 3

working days and the final report of uncomplicated cases within 60 days. Physicians needing copies of these reports should contact the Patient Administration Division or the chief of their service.

(6) Any other questions relating to the Autopsy Service may be addressed to the office of the Chief, Anatomic Pathology Service (916-3307).

9. CLINICAL PATHOLOGY SERVICE. DPALS offers clinical pathology services to BAMC, Great Plains Regional Medical Command, and other medical treatment facilities world wide using qualified professionals and state of the art methods and instrumentation. Clinical Pathology Service consists of the following services: Core Laboratory (Hematology and Chemistry), Microbiology, and Blood Bank. Our service captures in excess of one million MEPR units per year. Quality is the top priority and will not be compromised in any situation. Test results from all sections are continuously monitored for reliability, precision, and accuracy by both internal and external quality control programs. All laboratories are directed by board-certified pathologists. The laboratory’s accreditation, licensure, and other inspections include: Joint Commission for the Accreditation of Healthcare Organizations (JCAHO); College of American Pathologists (CAP); Inspector General; Army Audit Agency; U.S. Army Environmental Hygiene Agency; American Association of Blood Banks (AABB); Food and Drug Administration (FDA); Occupational, Safety and Health Administration (OSHA); and the Nuclear Regulatory Commission (NRC).

a. Microbiology. The Microbiology Laboratory offers services in bacteriology, mycobacteriology, mycology, parasitology, serology, and virology.

(1) Specimen Collection. Proper specimen selection, collection, and transport are critical to ensure that the specimen is representative of the disease process with minimal contamination from the microorganisms present in adjacent tissues. Specimen containers should be transported within a sealable, leak-proof, plastic bag. Do not transport syringes with needles to the laboratory. Instead, contents should be transferred to a sterile container or the needle should be removed with a protective device and capped syringe placed in a sealable, leak-proof, plastic bag.

(2) Specimen Suitability. Specimens, which have not been properly collected or transported, will be subject to rejection. Irretrievable specimens will be judged on an individual basis to salvage the specimen whenever possible. In this case, the HCP will be notified by phone or fax.

(3) General Rejection (Microbiology Guidelines).

(a) Delays in transport which affect test result.

(b) Duplicate specimens (except for blood culture) in a 24-hour period.

(c) Improper collection container, handling, or collection.

(d) Inadequate volume.

(e) Inappropriate specimen for a given test.

(f) Leaking specimen or gross external contamination of collection container.

(g) Sample contaminated with barium.

(h) Specimen received in fixative.

(i) Specimen received without a label or improper label.

b. Blood Bank (Transfusion Medicine and Akeroyd Blood Donor Center).

(1) General Information.

(a) The Blood Bank consists of Transfusion Medicine (TM) at the hospital and the Akeroyd Blood Donor Center (Building 1240). The role of TM is to provide safe, quality, compatible blood products to support BAMC patient transfusion needs. The role of the Donor Center is to collect and manufacture those blood products.

(b) TM is located on the fourth floor of the hospital (phone: 916-3315 or 5185) and is operational 24 hours a day, 7 days a week.

(c) The Akeroyd Blood Donor Center is located on Harney Road, Building 1240. Donor Center operations usually occur Monday through Friday during normal duty hours. Special requests/procedures or blood products require direct consultation with the Medical Director or Chief of the Blood Bank. These products and/or services may be available in limited quantities, have relatively short shelf life, or require mobilization of donors and/or specialized technical personnel, therefore require consultation prior to approval or release.

(d) Any issues regarding TM or Donor Center operations should be addressed to the Medical Director at 916-4325 or the Chief of the Blood Bank at 916-1180.

(e) Policies governing TM and Donor Center operations are available in BAMC Memo 40-84 (Procedures for the Use of Blood and Blood Products) and BAMC Memo 40-38 (Blood Donor Program). It is critical that BAMC staff become familiar with these BAMC memos in order to ensure effective and efficient use of available TM and Donor Center resources.

(2) Test and Blood Ordering Categories.

(a) Routine Type and Crossmatch (T&C). A full pretransfusion testing is performed on the patient’s blood including ABO group, Rh type, antibody screen, and a crossmatch. An abbreviated saline, immediate-spin crossmatch (room temperature) is performed if the antibody screen is negative and a past history of antibody formation not evident. Routine T&C procedures are usually performed for elective surgical procedures associated with blood loss . See Maximum Surgical Blood Ordering Schedule (MSBOS) at Appendix E. Blood is usually available within four hours.

(b) Type and Screen (T&S). The ABO group, Rh type and antibody screen is performed on the patient’s blood. A crossmatch is performed if unexpected antibodies are present in the antibody screen. T&S procedures are used primarily for elective surgical procedures not usually associated with blood loss (see MSBOS, Appendix E). An SF 518 marked "Type and

Screen" should be submitted for each unit of red cells requested. The SF 518 and corresponding specimen are usually held for 3 days from the date of request; 10 days when accompanied by documentation verifying immunologic status described in BAMC Memo 40-84. T&S requests are usually processed within two hours. In the unlikely event that blood is required for the patient, a saline, immediate-spin crossmatch may be performed on an expedited basis (10 to 20 minutes).

(c) ASAP. TM doesn't utilize this category due to the nature of a patient's need for blood; all requests are performed as soon as possible.

(d) STAT. This refers to the performance of expedited pretransfusion T&C procedures requested for emergency or semi-emergency surgical procedures and is usually completed within the hour. Previously submitted T&S blood requests are converted to STAT after a subsequent need for blood develops.

(e) Emergency Medical Release (EMR). See paragraph 19, Emergency Medical Release Procedures, BAMC Memo 40-84.

(3) Maximum Surgical Blood Ordering Schedule (MSBOS).

(a) The transfusion guidelines listed in Appendix E are recommended average transfusion levels derived by tabulating blood usage over several years for each elective surgical procedure performed in this hospital. Those procedures that have a historically low probability of requiring blood transfusion are listed as Type and Screen (T&S). T&S includes an ABO/Rh typing and antibody screen performed preoperatively (see paragraph 12. h. (2) for discussion of T&S procedures in BAMC Memo 40-84, Use of Blood and Blood Products). Elective surgical procedures that have a greater risk and a historically higher probability of requiring transfusion are crossmatched (see Paragraph 12. h. (1) for discussion of crossmatch procedures in the BAMC Memo 40-84). The maximum number of blood units that should be crossmatched are listed at the end of the schedule.

(b) T&S procedures listed in the schedule may be converted to crossmatch (T&C) procedures if the physician determines that the probability for transfusion is likely based on the patient's clinical condition. In such cases, the SF 518

must be clearly annotated “T&C”; otherwise, a T&S procedure will be performed.

(c) The Hospital Transfusion Practices Committee periodically reviews the transfusion data on elective surgical procedures to ensure compliance with the MSBOS. The committee will also change the schedule as needed when transfusion levels dictate modifications.

APPENDIX A

Explanation of Abbreviations and Terms

AABB	American Association of Blood Banks
Ab	Antibody
ACTH	Adrenocorticotropic Hormone
AF	Air Force
AFB	Acid Fast Bacillus
AG	Antigen
ALK	Alkaline
ALT	Alanine Aminotransferase
ANA	Anti Nuclear Antibody
AOD	Administrative Officer of the Day
AP	Anatomic Pathology
APTT	Activated Partial Thromboplastin Time
ASAP	As Soon As Possible
ASO	Antistreptolysin O
AST	Aspartate Aminotransferase
BAMC	Brooke Army Medical Center
BASO	Basophile
BATT	Battery
BC	Blood Culture
BUN	Blood Urea Nitrogen
C	Clostridium
CA	Calcium
CAP	College of American Pathologists
CBC	Complete Blood Count
cc	cubic centimeter
CCMS	Clean Catch Midstream
CDC	Center for Disease Control
CHCS	Composite Health Care System
CK	Creatine Kinase
CK-MB	Creatine Kinase Muscle/Brain
CMV	Cytomegalovirus
CO_2	Carbon Dioxide
COAG	Coagulation
COMP	Complete
CP	Clinical Pathology
CSF	Cerebrospinal Fluid
CT	Cell Titer

CULT	Culture
Cytotech	Cytology Technologist
DFA	Direct Fluorescent Antibody
dL	deciliter
DNA	Deoxyribonucleic Acid
DPALS	Department of Pathology and Area Laboratory Services
DSN	Defense Switched Network
ED	Emergency Department
EDTA	Ethylenediaminetetraacetate
EIA	Enzyme Immunoassay
EM	Electron Microscopy
EMR	Emergency Medical Release
ENA	Extractable Nuclear Antigen
EOS	Eosinophile
ER/PR	Estrogen/Progesterone
FBS	Fasting Blood Sugar (Glucose)
FDA	Food and Drug Administration
FFP	Fresh Frozen Plasma
FIB	Fibrinogen
FMP	Family Member Prefix
FNA	Fine Needle Aspiration
FTA	Fluorescent Treponemal Antibody
GGT	Gamma Glutamyltransferase
gm	gram
GYN	Gynecological
HCG	Human Chorionic Gonadotropin
HCP	Healthcare Providers
HCT	Hematocrit
HDL	High Density Lipoprotein
Hem/Onc	Hematology/Oncology Service
HGB	Hemoglobin
HIAA	Hydroxyindoleacetic Acid
HIV	Human Immunodeficiency Virus
HLA	Human Leukocyte Antigen
HR	Hour
HSC	Health Services Command
IAW	In Accordance With
ICU	Intensive Care Unit
IFA	Immunofluorescent Antibody
IFM	Immunofluorescence Microscopy
IgA	Immunoglobulin A
IgG	Immunoglobulin G

IgM	Immunoglobulin
INR	International Normalized Ratio
IRR	Immediate Result Reporting
IV	Intravenous
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
LCX	Ligase Chain Reaction
LD	Lactate Dehydrogenase
MCH	Mean Corpuscular Hemoglobin
MCHC	Mean Corpuscular Hemoglobin Concentration
MCV	Mean Corpuscular Value
MEPR	Medical Expense and Performance Reporting
mg	milligrams
MI	Middle Initial
mL	milliliter
MLT	Medical Laboratory Technician
mm	millimeter
MONO	Monocyte
MPV	Mean Platelet Volume
MRSA	Methicillin Resistant Staphylococcus Aureus
MSBOS	Maximum Surgical Blood Ordering Schedule
MTF	Medical Treatment Facility
NCOIC	Non Commissioned Officer in Charge
NCR	Nuclear Regulatory Commission
NLT	Not Later Than
NRC	Nuclear Regulatory Commission
O&P	Ova and Parasite
OIC	Officer in Charge
OSHA	Occupational, Safety, and Health Administration
PAN	Panel
Ped	Pediatric
PERI	Peripheral
PLT	Platelet
POD	Pathologist-of-the-Day
PREOP	Preoperative
PT	Prothrombin Time
PTT	Partial Thrombin Time
PVA	Polyvinylalcohol
QUAL	Qualitative
QUANT	Quantitative
R/O	Rule Out
RBC	Red Blood Cells

RDW	Red Cell Distribution Width
RIA	Radioimmunoassay
RIBA	Recombinant Immunoblot Assay
RNP	Ribonucleoprotein
RPMI	Roswell Park Medical Institute
RPR	Rapid Plasma Reagin
RSV	Respiratory Syncytial Virus
SCR	Screen
SI	Seriously Ill
SPEP	Serum Protein Electrophoresis
SSA	Sjögrens Syndrome, A Marker
SSB	Sjögrens Syndrome, B Marker
SSN	Social Security Number
SST	Silicone (Serum) Separator Tube
STAT	Emergency, Request Priority
SUM	Summation
T&C	Type and Crossmatch
T&S	Type and Screen
TAT	Turn Around Times
TB	Tuberculosis
TdT	Terminal Deoxyribonucleic Transferase
TM	Transfusion Medicine
TOT	Total
TSH	Thyroid Stimulating Hormone
UA	Urinalysis
UCA	Uniform Charge Account
URN	Urine
UUN	Urine Urea Nitrogen
VDRL	Venereal Disease Research Laboratory
VRE	Vancomycin Resistant Enterococcus
VSI	Very Seriously Ill
WBC	White Blood Count
WHMC	Wilford Hall Medical Center
β-HCG	Beta Human Chorionic Gonadotropin

APPENDIX B

DPALS Telephone Numbers

Commercial (210) 916-xxxx, DSN is 429-xxxx.
Commercial (210) 295-xxxx, DSN is 421-xxxx.

Chief, DPALS	916-3311
Secretary	916-2352
NCOIC	916-4114
Laboratory Manager	916-1817
Accounting and Supply Section	916-0318
Commercial Laboratory Representative	916-2751
Computer Assistant	916-1448
Performance Improvement Coordinator	916-2722
Point-of-Care Testing Coordinator	916-1641
Receptionist (first floor)	916-1412
Receptionist (fourth floor)	916-2833/4333
Shipping/Receiving	916-1538
Specimen Processing NCOIC	916-1220
Anatomic Pathology (AP) Service	
Chief, AP	916-4421
Secretary	916-1845
NCOIC	916-2266
Chief, Cytopathology	916-3307
Medical Director	916-4224
Reports	916-2243
Histology	916-3755/4419
Morgue	916-0917/5998
Surgical Reports	916-5162/4208
Clinical Pathology (CP) Service	
Chief, CP	916-1115
Secretary	916-1230
NCOIC	916-0804
91K (MLT) Phase II Coordinator	916-3008
Chief, Blood Bank	916-1180/2299
Blood Bank Medical Director	916-1115
Blood Bank	916-3315/5585
Blood Donor Center	295-4109/4989
Chief, Core Laboratory	916-4393
Chemistry	916-2043
Therapeutic Drug Monitoring	916-2190
Urinalysis	916-2167

Hematology	916-4454
Coagulation	916-1462
Bone Marrow	916-4172
Flow Cytometry	916-4123
Troop Medical Center Laboratory	295-4897/4949
Chief, Immunochemistry	295-4749
Reference Chemistry Supervisor	295-4722
Chief, Microbiology Section	916-0329
Microbiology Section Medical Director	916-4325
Bacteriology Section Supervisor	916-3168/3353
Immunology Section Supervisor	916-4671
Hepatitis Section	916-3353
Mycology	916-5360
Mycobacteriology	916-5851
Parasitology	916-3028
Serology	916-0402
Virology	916-2421

APPENDIX C

Emergency (STAT) Test Menu

Emergency (STAT) testing is allowed from the following services:	
Acute Care Clinic	Medical Intensive Care Unit
Burn Acute/Intensive Care Units	Operating Room
Cardiac Care Unit	Surgical Intensive Care Unit
Department of Emergency Medicine	
All other services must contact the Medical Director of the Section performing the test or the pathologist on call.	

Procedures authorized to be ordered and performed as Emergency (STAT):		
BLOOD BANK (see BAMC Memo 40-84 for specific policies)		
Crossmatch and release of components		
Transfusion reaction evaluation		
CHEMISTRY SECTION, CORE LABORATORY		
Basic Metabolic Panel (BMP): Anion Gap, BUN, Chloride, CO_2, Creatinine, Glucose, Potassium, Sodium		
Acetaminophen	CK-MB	Phosphorus
Albumin	Cyclosporine	Salicylate
Alcohol	Digoxin	Serum or Urine HCG, qualitative
Ammonia	Dilantin	Theophylline
Amylase	Lactic Acid	Troponin I
β-HCG, quantitative	Magnesium	Urinalysis, macroscopic
Calcium	Myoglobin	
CK	Phenobarbital	
HEMATOLOGY SECTION, CORE LABORATORY		
Body fluid cell count	Fibrin Split Products	
CBC with automated differential	Monospot	
D-Dimer	PT/PTT/FIB/Thrombin Time	
MICROBIOLOGY		
Antigen tests for bacterial agents of meningitis on CSF (Monday-Friday, 0700-2200; Saturday and Sunday, 0800-1600)		
Gram stain on sterile body site (CSF, peritoneal fluid, etc.)		

The tests listed in this appendix may be ordered STAT, individually. If other tests are ordered on the same laboratory specimen, the request will automatically be reprioritized to an ASAP request. ASAP turnaround time is within 4 hours.

APPENDIX D

Clinical Pathology Service Test Manual

TEST NAME	SUBMITTING REQUIREMENTS
1:1 COAG MIX STUDY	1. Patient Preparation: None. 2. Collection Container: Two 5 mL or three 3 mL blue top tubes (sodium citrate). 3. Specimen and Volume Required: Fill to line on tube (4.5 mL on 5 mL tubes; 2.7 mL on 3 mL tubes). 4. Specimen Processing Instructions: Gently mix. Performed only on patients not on Coumadin or Heparin with abnormal PT and/or APTT. 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462.
17-ALPHA HYDROXYPROGES-TERONE (17-OHP)	1. Patient Preparation: Early morning specimen preferred 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Freeze serum. Record patient age and collect time on request form. Ship on dry ice. 5. Cause for Rejection: Hemolyzed sample. Non-frozen specimen from outside source. 6. Expected TAT: 10 days. 7. Test Performed in Immunochemistry, 916-5511.
17-HYDROXYCORTICO STEROID PANEL	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 25 mL of 24-hour urine collection. 4. Specimen Processing Instructions:

TEST NAME	SUBMITTING REQUIREMENTS
	Laboratory will add 1-2 gm of Boric Acid to the 24-hour urine collection. After mixing well, aliquot 25 mL of the 24-hour urine collected into a labeled separate container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: pH of urine must be between 4-7. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: 17-HYDROXYCORTICOSTEROIDS;URINE TOTAL VOLUME;17-HYDROXYCORTICOSTEROIDS 24-HR
1HR GLUCOSE CHALLENGE, PREGNANT	1. Patient Preparation: None. 2. Collection Container: Sodium Fluoride tube (gray top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Give patient 50 grams Glucola. Draw 1 hour after ingestion. If utilizing any tube other than a gray top, centrifuge and remove from clot within 30 minutes of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
24 HR URINE CALCIUM (PANEL)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of random or 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Mix well before pouring off aliquot. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: None.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URINE TOTAL VOLUME; CALCIUM, URINE (24HR); URN CALCIUM CONCENTRATION
24 HR URINE CATECHOLAMINES	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 50 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: Laboratory will add 15 mL of concentrated Hydrochloric Acid (12N) to the 24-hour urine collection. After mixing well, aliquot 50 mL of the 24-hour urine collected into a labeled separate container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: pH of urine must be between 1-3. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URINE TOTAL VOLUME; DOPAMINE, URINE; DOPAMINE, URINE (24HR); EPINEPHRINE, URINE (24HR); EPINEPHRINE, URINE (24HR); NOREPINEPHRINE, URINE; NOREPINEPHRINE, URINE (24HR)
24 HR URINE CHLORIDE (PANEL)	1. Patient Preparation: Instruct patient to empty bladder first thing in the morning. All future urine voids should be collected in a clean 24-hour urine collection container. Final collection is made when patient empties their bladder the next morning at the same time. Keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL

TEST NAME	SUBMITTING REQUIREMENTS
	aliquot of 24-hour urine collection . 4. Specimen Processing Instructions: No preservative required. Laboratory staff will mix the 24-hour urine well before pouring off a 10 mL aliquot. Record total volume of 24-hour urine on accession labels. Store refrigerated. Ship on wet ice. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043. 8. Tests in Panel: CHLORIDE, URINE (24HR); URINE TOTAL VOLUME; URN CHLORIDE CONCENTRATION
24 HR URINE CITRATE (PANEL)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 25 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: Laboratory will add 15 mL of concentrated Hydrochloric Acid (12N) to the 24-hour urine collection. After mixing well, aliquot 25 mL of the 24-hour urine collected into a labeled separate container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: pH of urine must be between 1-3. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: CITRATE, URINE; URN CITRATE CONCENTRATION; URINE TOTAL VOLUME
24 HR URINE COPPER (PANEL)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: Acid-washed 24-hour urine container. 3. Specimen and Volume Required: 25 mL aliquot of 24-hour urine collection.

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: No preservative required. Mix urine in 24-hour urine container well. Aliquot 25 mL of 24-hour collection into a separate labeled container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: Must be collected in acid-washed container. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: COPPER, URINE (24HR); URN COPPER CONCENTRATION; URINE TOTAL VOLUME
24 HR URINE CREATININE (PANEL)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Mix well before pouring off aliquot. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: CREATININE,URINE (24HR); URINE TOTAL VOLUME; URN CREATININE CONCENTRATION
24 HR URINE GLUCOSE (PANEL)	1. Patient Preparation: Instruct patient to empty bladder first thing in the morning. All future urine voids should be collected in a clean 24-hour urine collection container. Final collection is made when patient empties their bladder the next morning at the same time. Keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine

TEST NAME	SUBMITTING REQUIREMENTS
	container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Laboratory staff will mix the 24-hour urine well before pouring off a 10 mL aliquot. Record total volume on accession labels. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043. 8. Tests in Panel: GLUCOSE, URINE (24HR); URINE TOTAL VOLUME; URN GLUCOSE CONCENTRATION
24 HR URINE MAGNESIUM (PANEL)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Mix well before pouring off aliquot. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: MAGNESIUM, URINE (24HR); URINE TOTAL VOLUME; URN MAGNESIUM CONCENTRATION
24 HR URINE METANEPHRINE PANEL	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 50 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: Laboratory will add 15 mL of concentrated

TEST NAME	SUBMITTING REQUIREMENTS
	Hydrochloric Acid (12N) to the 24-hour urine collection. After mixing well, aliquot 50 mL of the 24-hour urine collected into a labeled separate container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: pH must be between 1-3. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URINE TOTAL VOLUME; METANEPHRINE,URINE (24HR); URN METANEPHRINE CONCENTRATION; NORMETANEPHRINE,URINE (24HR); URN NORMETANEPHRINE CONC; URN 3-METHOXYTYRAMNE CONC; 3-METHOXYTYRAMNE,URINE (24HR); TOTAL METANEPHRINE,URINE (24HR)
24 HR URINE OXALATE PANEL (BAMC)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 80 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: Laboratory will add 15 mL of concentrated Hydrochloric Acid (12N) to the 24-hour urine collection. After mixing well, aliquot 80 mL of the 24-hour urine collected into a labeled separate container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: pH must be between 1-3. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URN OXALATE CONCENTRATION; OXALATE,URINE (24HR); URINE TOTAL VOLUME
24 HR URINE PHOSPHORUS (PANEL)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Mix well before pouring off aliquot. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: PHOSPHORUS, URINE (24HR); URINE TOTAL VOLUME; URN PO4 CONCENTRATION
24 HR URINE POTASSIUM (PANEL)	1. Patient Preparation: Instruct patient to empty bladder first thing in the morning. All future urine voids should be collected in a clean 24-hour urine collection container. Final collection is made when patient empties their bladder the next morning at the same time. Keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Laboratory staff mix the 24-hour urine collection well before pouring off a 10 mL aliquot. Record total volume on accession labels. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043. 8. Tests in Panel: POTASSIUM, URINE (24HR); URINE TOTAL VOLUME; URN POTASSIUM CONCENTRATION
24 HR URINE PROTEIN (PANEL)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection

TEST NAME	SUBMITTING REQUIREMENTS
	refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Mix well before pouring off aliquot. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: Do NOT add acid, acidified specimen cannot be run. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: PROTEIN,URINE (24HR); URINE TOTAL VOLUME; PROTEIN, URINE
24 HR URINE SODIUM (PANEL)	1. Patient Preparation: Instruct patient to empty bladder first thing in the morning. All future urine voids should be collected in a clean 24-hour urine collection container. Final collection is made when patient empties their bladder the next morning at the same time. Keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Laboratory staff mix the 24-hour urine well before pouring off a 10 mL aliquot. Record total volume on accession labels. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043. 8. Tests in Panel: URINE TOTAL VOLUME; SODIUM, URINE (24HR); URN SODIUM CONCENTRATION
24 HR URINE URIC	1. Patient Preparation: Instruct patient

TEST NAME	SUBMITTING REQUIREMENTS
ACID (PANEL)	to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required, mix urine in 24-hour urine container well before pouring off aliquot. Note date, time of collection and total volume on request slip. 5. Cause for Rejection: Do NOT add acid, acidified specimen cannot be run. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URIC ACID,URINE (24HR); URINE TOTAL VOLUME; URN URIC ACID CONCENTRATION
24 HR URINE UUN (PANEL)	1. Patient Preparation: Instruct patient to empty bladder first thing in the morning. From then on collect in a clean bottle all urine during the day and night. Final collection is made when patient empties their bladder the next morning at the same time. Keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Laboratory staff mix the 24-hour urine well before pouring off a 10 mL aliquot. Record total volume on accession labels. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043. 8. Tests in Panel: UUN, URINE (24HR); URINE TOTAL VOLUME; URN UUN CONCENTRATION
24 HR URINE ZINC	1. Patient Preparation: Instruct patient

TEST NAME	SUBMITTING REQUIREMENTS
(PANEL)	to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 25 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: Laboratory will add 15 mL of concentrated Hydrochloric Acid (12N) to the 24-hour urine collection. After mixing well, aliquot 25 mL of the 24-hour urine collected into a labeled separate container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: Container must be acid-washed. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URN ZINC CONCENTRATION; URINE TOTAL VOLUME; ZINC, URINE (24HR)
2HR POSTPRADIAL GLUCOSE	1. Patient Preparation: Patient is to eat 2 hours prior to having their blood drawn. 2. Collection Container: Sodium Fluoride tube (gray top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Draw 2 hours after meal. If utilizing any tube other than a gray top, centrifuge and remove from clot within 30 minutes of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
2HR URINE AMYLASE (BAMC)	1. Patient Preparation: Instruct patient to empty bladder first thing in the morning. From then on collect in a clean bottle all urine during the 2-hour time period. Keep 2-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container.

TEST NAME	SUBMITTING REQUIREMENTS
	3. Specimen and Volume Required: 10 mL aliquot of 2-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Laboratory staff mix the 24-hour urine well before pouring off a 10 mL aliquot. Record total volume on accession labels. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043. 8. Tests in Panel: URINE TOTAL VOLUME; AMYLASE, URINE (TIMED)
5 HIAA URINE	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 20 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: Laboratory should add 20 mL of concentrated Acetic Acid (Glacial) to 24-hour urine collection. After mixing well, aliquot 20 mL of 24-hour urine to a separate labeled container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: pH must be between 2-3. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URINE TOTAL VOLUME; 5 HIAA; 5 HIAA (24 HR)
ABO GROUP & RH TYPE	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 4 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
ACETAMINOPHEN	1. Patient Preparation: Plasma levels most accurately predict toxicity when samples are drawn between four and 12 hours after ingestion. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
ACETEST	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Urinalysis, 916-2167 and Troop Medical Clinic, 295-4503.
ACETYLCHOLINE RECEPTOR ANTIBODY	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze within 1 hour. Ship on dry ice. 5. Cause for Rejection: Hemolysis or lipemia. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
ACID FAST CULTURE AND STAIN	1. Patient Preparation: NA. 2. Collection Container: See number 3 below. 3. Specimen and Volume Required: a. 3-10 mL ascitic fluid, sterile tube

TEST NAME	SUBMITTING REQUIREMENTS
	b. 10 mL blood, isolator tube (call Microbiology Laboratory for tubes/bottles and consult with Infectious Disease Service) c. 5 mL blood, BACTEC 13A (call Microbiology Laboratory for tubes/bottles and consult with Infectious Disease Service) d. 3-10 mL CSF, sterile tube e. Greater than 1 gram feces, specimen cup. Clean, dry, wax-free cup without preservatives. f. Gastric fluid, representative portion, sterile cup. g. Pericardial, representative portion, sterile cup. h. 3-10 mL pleural fluid, sterile tube. i. Tissue/bone, sterile cup. Do not allow specimen to dry out, small amount of saline may be added. j. Bronchial wash, representative portion, sterile cup. k. 5-10 mL sputum, sterile cup. l. Minimum 40 mL urine, sterile cup. Early morning CCMS, 3 consecutive days. Do not submit 24-hour urines. 4. Specimen Processing Instructions: If submitted from off-post, ship on ice. 5. Cause for Rejection: See Microbiology Section, general rejection criteria. Transport delay more than 24 hours for local specimens, and more than 72 hours for off-post specimens. 6. Expected TAT: 6 weeks (Acid-Fast Bacilli stain results are normally available within 24 hours). 7. Test Performed in Microbiology Section, 916-3353.
ACID FAST STAIN FOR CRYPTOSPORIDIUM	1. Patient Preparation: Collect 1 stool each day for 3 consecutive days. Select the bloody or slimy portion of sample for submission. 2. Collection Container: O&P Collection Kit. 3. Specimen and Volume Required: Preserved

TEST NAME	SUBMITTING REQUIREMENTS
	or fresh stool. Add stool to the sample vial until PVA liquid reaches the reference line on the bottle. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. Specimen taken from toilet bowl or contaminated with urine or water. Specimen containing barium or bismuth compounds. 6. Expected TAT: 2 days. 7. Test Performed in Microbiology Section, 916-3353.
ACTH	1. Patient Preparation: None. 2. Collection Container: Pre-chilled siliconized EDTA. 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: Separate cells from plasma and freeze plasma immediately. Ship on dry ice. 5. Cause for Rejection: Hemolyzed sample. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
ACUTE HEPATITIS B PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 4-5 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353. 8. Tests in Panel: HEPATITIS B SURFACE AG; HEPATITIS B CORE ANTIBODY IGM; HEPATITIS B CORE ANTIBODY TOT
ACUTE VIRAL HEPATITIS PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 4-5 mL

TEST NAME	SUBMITTING REQUIREMENTS
	serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353. 8. Tests in Panel: HEPATITIS B SURFACE AG; HEPATITIS B CORE ANTIBODY IGM; HEPATITIS A VIRUS ANTIBODY IGM; HEPATITIS C VIRUS ANTIBODY
ALBUMIN	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
ALBUMIN/ CREATININE RATIO (Urine)	1. Patient Preparation: None. 2. Collection Container: Plastic vial. 3. Specimen and Volume Required: 2 mL urine. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-5 days. 7. Test Performed WHMC Electrophoresis, (210) 292-5466.
ALDOLASE	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Store frozen. Ship on dry ice. 5. Cause for Rejection: Specimen must be frozen if not analyzed within 24 hours. 6. Expected TAT: 72 hours. 7. Test Performed in Reference Chemistry,

TEST NAME	SUBMITTING REQUIREMENTS
	295-4722.
ALDOSTERONE, SERUM	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Gross hemolysis or lipemia. Non-frozen specimen from outside source. 6. Expected TAT: 10 days. 7. Test Performed in Immunochemistry/RIA, 916-5511.
ALK PHOSPHATASE	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
ALKALINE PHOSPHATASE ISOENZYMES	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 4 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 48 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
ALLERGENS (20)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 10 mL serum. 4. Specimen Processing Instructions: Ship

TEST NAME	SUBMITTING REQUIREMENTS
	on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 48 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
ALPHA FETOPROTEIN (AFP)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 3-5 days. 7. Test Performed by WHMC RIA, (210) 292-5501.
ALPHA-1 ANTITRYPSIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Store frozen. Ship on dry ice. 5. Cause for Rejection: Specimen must be frozen if not analyzed within 24 hours. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
ALT	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
AMIKACIN PEAK	1. Patient Preparation: For intravenous therapy, peak concentrations occurs 15 to 30 minutes following completion of infusion. For intramuscular therapy, peak

TEST NAME	SUBMITTING REQUIREMENTS
	concentration occurs 45 to 75 minutes following administration. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
AMIKACIN RANDOM	1. Patient Preparation: None. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
AMIKACIN TROUGH	1. Patient Preparation: For intravenous therapy and intramuscular therapy, trough concentration occurs not more than 30 minutes before next dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
AMMONIA (BAMC)	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top (preferred) or Sodium/Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Submit on ice or frozen. Centrifuge and separate within 15 minutes from cells.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Submitted at room temperature or unfrozen. 6. Expected TAT: 1 hour. 7. Test Performed in Clinical Chemistry, 916-2043.
AMYLASE	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
AMYLASE, URINE (RANDOM)	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 1 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
AMYLASE, URINE (TIMED)	1. Patient Preparation: Instruct patient to empty bladder first thing in the morning. All future urine voids should be collected in a clear 24-hour urine collection container. Final collection is made when patient empties their bladder the next morning at the same time. Keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Laboratory staff mix this 24-hour urine well before pouring off a

TEST NAME	SUBMITTING REQUIREMENTS
	10 mL aliquot. Record time and total volume on accession labels. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
ANCA (NEUTROPHIL CYTOPLASMIC ANTIBODY)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-5 days. 7. Test Performed by WHMC Diagnostic Immunology, (210) 292-5897.
ANGIOTENSIN CONVERTING ENZYME	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Gross hemolysis. 6. Expected TAT: 48 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
ANTI DNA (EIA)	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402.
ANTI ENA PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST).

TEST NAME	SUBMITTING REQUIREMENTS
	3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 5 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: ANTI-RNP; ANTI-SMITH; ANTI-SSA; ANTI-SSB
ANTI NUCLEAR ANTIBODIES (BAMC)	1. Patient Preparation: Aseptic technique. Not performed on CSF or Body Fluids. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: ANA SCR; ANA TITER; ANA PATTERN; ANA TITER2; ANA PATTERN2
ANTIBODY SCREEN/ IDENTIFICATION	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
ANTIBODY TITER	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly

TEST NAME	SUBMITTING REQUIREMENTS
	collected or labeled. 6. Expected TAT: 4 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
ANTI-CARDIOLIPIN PANEL	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-5 days. 7. Test Performed WHMC Diagnostic Immunology, (210) 292-5897.
ANTIGLOBULIN TEST, DIRECT (DAT)	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
ANTIGLOBULIN TEST, INDIRECT	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
ASO PANEL (BAMC)	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum.

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 7 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: ANTI DNASE B; ANTI STREP O
AST	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
AUTOLOGOUS TRANSFUSION, PREOPERATIVE DEPOSIT	1. Patient Preparation: The request for autologous donation is made using BAMC Form 109, Authorization for Autologous Transfusion. After completion of the authorization form, the patient's physician must refer the patient to the Akeroyd Blood Donor Center. 2. Collection Container: NA. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: NA. 6. Expected TAT: NA. 7. Request processed at the Akeroyd Blood Donor Center, Building 1240, 295-4989.
BACTERIA ANTIGEN PANEL	1. Patient Preparation: Disinfect site with iodine. Use aceptic technique to aspirate spinal fluid. Submit samples to the lab in labeled tubes as follows: Tube 1 – Chemistry (tube 1 can never be used for culture or cell count). Tube 2 – Hematology. Tube 3 – Microbiology. Tube 4 – Bacterial Antigen test and additional requests. 2. Collection Container: Sterile, leak-

TEST NAME	SUBMITTING REQUIREMENTS
	proof CSF collection set. 3. Specimen and Volume Required: CSF, 2 mL into tube 4. 4. Specimen Processing Instructions: Transport immediately to the laboratory. Refrigerate or place on ice if more than 1 hour delay. 5. Cause for Rejection: Quantity not sufficient when small volumes are submitted. Test not performed on gram stain negative CSF or if chemistry or PMN report do not indicate a bacterial meningitis. Improperly submitted for requested on samples other than CSF. 6. Expected TAT: Gram stain available within 1 hour. Bacterial Antigen available within 2 hours during normal duty hours. 7. Test Performed in Microbiology Section, 916-3353. 8. Tests in Panel: GROUP B STREP AG; HAEMOPHILUS INFLUENZAE B AG; N MEN/E COLI K1; STREP PNEUMONIAE AG.
BASIC METABOLIC PANEL	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 2 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503. 8. Tests in Panel: GLUCOSE; UREA NITROGEN; CREATININE; SODIUM; POTASSIUM; CHLORIDE; CARBON DIOXIDE; ANION GAP (NA-CL-CO2); CALCIUM
BETA 2 MICROGLOBULIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum.

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: Store frozen. Ship on dry ice. 5. Cause for Rejection: Specimen must be frozen if not analyzed within 24 hours. 6. Expected TAT: 72 hours. 7. Test Performed in Reference Chemistry, 295-4722.
BILIRUBIN, DIRECT	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. Protect from light. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
BILIRUBIN, INDIRECT	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. Protect from light. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
BILIRUBIN, TOTAL	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. Protect from light. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.

TEST NAME	SUBMITTING REQUIREMENTS
BLEEDING TIME	1. Patient Preparation: Patient will be subjected to a small cut on the surface of the skin (usually on the inside of the forearm). The time it takes for a clot to form and bleeding to stop will be monitored. Patient must remain in the collection room during the procedure. Procedure will last approximately 15 minutes. 2. Collection Container: NA 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: NA. 6. Expected TAT: 1 hour. 7. Test Performed in Specimen Processing, 916-2833/4333.
BLOOD CULTURE	1. Patient Preparation: a. Site preparation. Use a commercial skin decontamination kit recommended for this purpose prior to collection. If kits are unavailable, vigorously cleanse the site with 70% isopropyl or ethyl alcohol. Swab site in a circular motion with 1-2% tincture of iodine for 30 seconds or with 10% povidone-iodine for 1 minute. Allow the site to dry. Do not palpate vein. b. Specimen collection. Disinfect top of bottle with alcohol; do not use iodine on tops of BACTEC bottles. Collect the blood aseptically. If vein is missed, redraw using a new needle and syringe. After venipuncture remove iodine from skin with alcohol. 2. Collection Container: a. Adults: BACTEC Plus/F aerobic/ anaerobic set. b. Pediatric patients: BACTEC Ped Plus/F pediatric bottle (Note: can also be used for adults with difficult access and low volume draws). c. Isolator tubes: For fungal and mycobacterial blood cultures. 3. Specimen and Volume Required: a. Adults: 8-10 mL blood.

TEST NAME	SUBMITTING REQUIREMENTS
	b. Pediatrics: 1-3 mL blood. c. Isolator tubes: 10 mL blood. 4. Specimen Processing Instructions: Label bottle with patient information. Do not cover bottle bar code. Submit to specimen processing immediately. 5. Cause for Rejection: Improperly collected or labeled blood cultures, and items listed under Microbiology general rejection criteria. Transport delays more than 24 hours. Bottles which have been refrigerated or preincubated. 6. Expected TAT: 5-7 days. Positive blood culture bottles are Gram stained and reported immediately after detection of growth. 7. Test Performed in Microbiology Section, 916-3353.
BLOOD PARASITES	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly labeled or collected. 6. Expected TAT: 3 days. 7. Test Performed in Microbiology Section, 916-3353.
BODY FLUID CELL COUNT AND DIFFERENTIAL (PLEURAL, PERICARDIAL, PERITONEAL, SYNOVIAL)	1. Patient Preparation: None. 2. Collection Container: EDTA lavender tube top, gently mix tube immediately after collection. 3. Specimen and Volume Required: ½ volume of tube. 4. Specimen Processing Instructions: Gently mix tube immediately to assure anti-coagulant is effective. 5. Cause for Rejection: Clotted specimens. 6. Expected TAT: 2 hours. 7. Test Performed in Hematology Section, 916-4454. 8. Tests in Panel: COLOR; APPEARANCE; RBC;

TEST NAME	SUBMITTING REQUIREMENTS
	NUCLEATED CELLS; POLYMORPHONUCLEAR CELLS; MONONUCLEAR CELLS
BODY FLUID CELL COUNT AND DIFFERENTIAL (CEREBROSPINAL FLUID, CSF)	1. Patient Preparation: None. 2. Collection Container: Sterile screw capped (CSF) tubes. 3. Specimen and Volume Required: 3-5 mL CSF. 4. Specimen Processing Instructions: All CSFs must be collected in a sterile screw capped tube, labeled #1, #2, #3, #4, in the order they are filled. Tube #1 is for Chemistry and Serology testing. Do not perform a cell count as this tube contains cells introduced by the spinal tap procedure. Tube #2 is for Hematology for a cell count and differential. Tube #3 is for Microbiology (keep at room temperature). This tube is least likely to contain skin contaminants. Tube #4 may be used for a second cell count if requested and for Microbiology. If a cell count and microbiology request is ordered on Tube #4, deliver to Hematology with Microbiology labels. The Hematology technologist will pour off fluid for the cell count to avoid contamination and deliver Tube #4 to Microbiology with the correct labels. Chemistry and Hematology tubes are to be refrigerated following test. 5. Cause for Rejection: Quantity not sufficient; clotted. 6. Expected TAT: 2 hours. 7. Test Performed in Hematology Section, 916-4454.
BODY FLUID CRYSTAL EXAM (SYNOVIAL FLUID)	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube, gently mix tube after collection to ensure anti-coagulant is effective. 3. Specimen and Volume Required: ½ volume of tube. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Quantity not sufficient.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 2 hours. 7. Test Performed in Hematology Section, 916-4454.
BODY FLUID CULTURE	1. Patient Preparation: Disinfect overlying skin with iodine. Obtain specimen via percutaneous needle aspiration or surgery. Transport to the laboratory immediately. May be submitted in BACTEC bottles. 2. Collection Container: Blood culture bottle set. 3. Specimen and Volume Required: Peritoneal, ascites, dialysates, synovial, and pleural fluid. (8-10 mL into blood culture bottles). (For other body fluids see Wound Culture, Deep). 4. Specimen Processing Instructions: Transport to laboratory immediately. 5. Cause for Rejection: Items listed under Microbiology general rejection criteria. 6. Expected TAT: 5 days. 7. Test Performed in Microbiology Section, 916-3353.
BONE-LYMP BATT	1. Patient Preparation: Medical Record Consultation (SF 513) and Tissue Report Form (SF 515) are required. 2. Collection Container: a. 1 Yellow Top Tube (ACD) for Bone Marrow Aspirate. b. Sterile Container with (RPMI) 1640 Cellgro for Tissue or Lymph Node. 3. Specimen and Volume Required: a. 2 – 5 cc in ACD tube for Bone Marrow. b. 3 mm or larger Fragment of Tissue or Lymph Node. 4. Specimen Processing Instructions: Specimen submissions require prior coordination with Medical Director or Flow Cytometry Technician. Specimens must be received by the laboratory prior to 1500 hours. Keep specimens at room temperature. 5. Cause for Rejection: Improperly collected, labeled, or stored incorrectly.

TEST NAME	SUBMITTING REQUIREMENTS
	Specimens that are bacterially contaminated, hemolyzed, clotted, exposed to extreme temperature, or specimens with low viability. Specimens received after 1500 hours. 6. Expected TAT: 3-5 days. 7. Test Performed in Flow Cytometry, 916-4123. 8. Tests in Panel: T CELLS: CD1a; CD2; CD3; CD4; CD5; CD7; CD8; PRE B CELLS; CD10 (CALLA) B CELLS: CD19; CD20; CD22; CD23; Lambda LtChn; Kappa LtChn MONO/MYEL CELLS: CD11c; CD13; CD14; CD15; CD33; HLA DR; CD16; CD25; CD34 (HPCA-1); CD42a (Plt); CD45; CD56 (NKH-1); CD62 (Plt Glyco); CD71 (Tran Rec); TdT; FMC-7; Glycophorin-A
C DIFFICILE TOXIN	1. Patient Preparation: NA. 2. Collection Container: Sterile, leak-proof container. 3. Specimen and Volume Required: 5 mL fresh stool. 4. Specimen Processing Instructions: Deliver to laboratory immediately. Specimens from off-post should be kept frozen and shipped on ice. 5. Cause for Rejection: Specimens submitted on swabs. Preserved or formed stool specimens. 6. Expected TAT: Test performed Monday, Wednesday, and Friday. Results available within 24 hours of test date. 7. Test Performed in Microbiology Section, 916-3353.
CA 15-3	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Hemolysis.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 48 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
CA 27-29	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 48 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
CADMIUM (BLOOD)	1. Patient Preparation: Occupational Health must be consulted prior to submission. 2. Collection Container: Royal blue top trace metal tube, Sodium Heparin tube (green top). 3. Specimen and Volume Required: 3 mL whole blood. 4. Specimen Processing Instructions: Store refrigerated. Ship on wet ice. 5. Cause for Rejection: Frozen specimens or serum cannot be run. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722.
CADMIUM EXPOSURE PANEL (OSHA)	1. Patient Preparation: Occupational Health must be consulted prior to submission. 2. Collection Container: a. Royal blue top trace metal tube, Sodium Heparin. b. Clean sealable urine container. 3. Specimen and Volume Required: a. 10 mL heparinized whole blood. b. 100 mL urine. 4. Specimen Processing Instructions: a. DO NOT FREEZE whole blood. Ship at room temperature. b. Urine must be collected as follows: The

TEST NAME	SUBMITTING REQUIREMENTS
	bladder should first be emptied, and then a large glass of water should be consumed; the sample may be collected within an hour after the water is consumed. Check the pH of the urine collected immediately, it must be between 6.0 and 8.0. Seal the urine collection container, freeze the specimen, maintain the specimen frozen during storage and shipment to the laboratory prior to analysis. Every effort should be made to collect initial and subsequent specimens during the same time of the day. Please call the laboratory at 210-295-4722 before beginning collections. 5. Cause for Rejection: a. If whole blood is frozen. b. If urine is not received frozen. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: CADMIUM (BLOOD); CADMIUM EXPOSURE PANEL CREAT; CADMIUM (URINE); CADMIUM/CREATININE RATIO; BETA 2 MICROGLOBULIN; B2M/CREATININE RATIO
CALCITONIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Hemolysis or lipemia. 6. Expected TAT: 5-7 days. 7. Test Performed by Smithkline, 1-800-377-8448.
CALCIUM	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Maintain integrity of sample by keeping

TEST NAME	SUBMITTING REQUIREMENTS
	sample container closed until testing. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
CALCIUM/ PHOSPHORUS URINE PANEL (BAMC)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Mix well before pouring off aliquot. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: PHOSPHORUS, URINE (24HR); URN PO4 CONCENTRATION; CALCIUM, URINE (24HR); URN CALCIUM CONCENTRATION; URINE TOTAL VOLUME
CANCER ANTIGEN 125 (CH 125)	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry/RIA, 916-5511.
CARBAMAZEPINE	1. Patient Preparation: For periodic testing and in situations of suspected inadequate dosage, sampling should be performed just prior to the next dose. In suspected toxicity, sampling is performed at any time.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
CARBOHYDRATE ANTIGEN 19-9	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 48 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
CARBON DIOXIDE	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. Maintain integrity of sample by keeping sample container closed until testing. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
CARCINOEMBRYONIC ANTIGEN (CEA)	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Turbid or lipemic serum.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
CAROTENE	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Separate serum from cells within 1 hour, place serum tube in light protective barrier (aluminum foil) to protect from light and freeze until analysis. Ship on dry ice. 5. Cause for Rejection: Hemolyzed specimens cannot be analyzed, nor can specimens that are unfrozen or unprotected from light. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722.
CBC PROFILE	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube or Pediatric bullet tube. 3. Specimen and Volume Required: Minimum 3-5 mL whole blood. 4. Specimen Processing Instructions: Allow vacutainer to draw to the level of its vacuum, mix gently. Transport sample to the laboratory at room temperature. Must be received by the laboratory within 8 hours of collection. 5. Cause for Rejection: Hemolysis, clots, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-4454 and at Troop Medical Clinic, 295-4503. 8. Tests in Panel: HGB; HCT; WBC; RBC; MCV; MCH; MCHC; RDW; PLT; MPV; %:NEUTRO; %:LYMPH; %:MONO; %:EOS; %:BASO; EOS; BASO; NEUTRO; LYMPH; MONO
CDC BASIC PANEL	1. Patient Preparation: Prior coordination with Flow Cytometry required. Medical

TEST NAME	SUBMITTING REQUIREMENTS
	Record Consultation (SF 513) and Tissue Report Form (SF 515) are required. Requesting physician must order a CBC in conjunction with this request. 2. Collection Container: a. EDTA lavender top tube (local request) or b. ACD yellow top tube (regional requests). 3. Specimen and Volume Required: a. One 7 mL EDTA lavender top tube or b. 7 mL yellow top tube. 4. Specimen Processing Instructions: Specimens must be received prior to 0900 hours. Keep specimens at room temperature. 5. Cause for Rejection: Specimens improperly collected or labeled. Specimens that are bacterially contaminated, hemolyzed, clotted, exposed to extreme temperature. Specimens older than 24 hours for EDTA and 48 hours for ACD collected specimens. 6. Expected TAT: 1 day. 7. Test Performed in Flow Cytometry, 916-4123. 8. Tests in Panel: WBC COUNT/CELL DYN; PERCENT LYMPHS; ABSOLUTE LYMPHS; CD3/T3 & CD8/T8; CD3/T3 PAN T; CD8/T8 SUPPRSS; CD3/T3 & CD4/T4; CD4/T4 HELPER; CD3- & CD19; CD3- & CD56; CD56/NKH-1 LGL; ABSOULTE CD4; ABS CD3 & CD8; CD4/ (CD8 & CD3); CD45 & CD14; T SUM; LYMPH SUM; LYMPHOCYTE PURITY; LYMPHOCYTE RECOVERY
CERULOPLASMIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze specimen. Ship on dry ice. 5. Cause for Rejection: Non-frozen specimen received from outside source. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry,

TEST NAME	SUBMITTING REQUIREMENTS
	295-4722.
CHLAMYDIA IgG ANTIBODY	1. Patient Preparation: Aseptic technique. Collect acute sample upon onset of illness and convalescent sample 2-4 weeks from onset. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 7 days. 7. Test Performed in Serology, 916-0402.
CHLAMYDIA LCX	1. Patient Preparation: Aseptic technique. 2. Collection Container: Sterile urine cup. 3. Specimen and Volume Required: Collect the first 15-20 mL of voided urine. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected, and/or labeled. 6. Expected TAT: 7 days. 7. Test Performed in Serology, 916-0402.
CHLAMYDIA/ GONORRHEA TEST BATTERY	1. Patient Preparation: Aseptic technique. Sample to be collected in clinic or ward. Female: use first swab to clean cervix, use second swab for sample collection. Male: insert swab 2-3 cm into urethra and rotate. 2. Collection Container: PACE-2 Collection Kit. 3. Specimen and Volume Required: Male urethra, female endocervical canal using the Gen-Probe Pace specimen collection kit. 4. Specimen Processing Instructions: Transport ASAP at room temperature. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Serology, 916-0402.
CHLORIDE	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
CHLORIDE, URINE (RANDOM)	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 1 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
CHOLESTEROL	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Refrigerate. Ship on wet ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
CHOLINESTERASE	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST) or EDTA plasma. 3. Specimen and Volume Required: 2 mL serum or EDTA plasma. 4. Specimen Processing Instructions: Freeze serum or plasma if not analyzed within 24 hours. Ship on dry ice. 5. Cause for Rejection: Hemolyzed specimens cannot be analyzed. Non-frozen specimens from outside source.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
CHROMOSOME ANALYSIS	1. Patient Preparation: Complete Keesler AFB Form 345 and submit with sample. 2. Collection Container: Sodium Heparin tube (green top). 3. Specimen and Volume Required: 3 mL whole blood. 4. Specimen Processing Instructions: Ship at room temperature. 5. Cause for Rejection: Call (210) 916-1220. 6. Expected TAT: 3-4 weeks. 7. Test Performed by AF Genetics Center, (228) 377-6393.
CHRONIC HEPATITIS B PAN	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 4-5 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353. 8. Tests in Panel: HEPATITIS B SURFACE AG; HEPATITIS B SURFACE ANTIBODY; HEPATITIS B CORE ANTIBODY TOT
CHRONIC VIRAL HEPATITIS PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 4-5 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353. 8. Tests in Panel: HEPATITIS B SURFACE AG; HEPATITIS B SURFACE ANTIBODY; HEPATITIS B

TEST NAME	SUBMITTING REQUIREMENTS
	CORE ANTIBODY TOT; HEPATITIS C VIRUS ANTIBODY
CK	1. Patient Preparation: Avoid exercise and/or intramuscular injections prior to venipuncture. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190/2043.
CK-MB BATTERY (BAMC)	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190/2043. 8. Tests in Panel: CK; CK-MB
CLINITEST	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in: Urinalysis, 916-2167 and Troop Medical Clinic, 295-4503.
COAG3	1. Patient Preparation: None. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 3 mL or 5 mL, fill to line on tube. 4. Specimen Processing Instructions: Gently mix tube after collection to ensure effectiveness of anti-coagulant.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462. 8. Tests in Panel: PT; APTT; FIBRINOGEN; INR THROMBIN TIME
COAGULATION PANEL	1. Patient Preparation: None. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 3 mL or 5 mL, fill to line on tube. 4. Specimen Processing Instructions: Gently mix tube after collection to ensure effectiveness of anti-coagulant. 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462. 8. Tests in Panel: PT; APTT; INR
COAGULATION PANEL AND FIBRINOGEN	1. Patient Preparation: None. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 3 mL or 5 mL, fill to line on tube. 4. Specimen Processing Instructions: Gently mix tube after collection to ensure effectiveness of anti-coagulant 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462. 8. Tests in Panel: PT; APTT; INR; FIBRINOGEN
COCCI TITER	1. Patient Preparation: Aseptic technique. Prior approval required. Contact Infectious Disease Service for approval. 2. Collection Container: Red top tube. 3. Specimen and Volume Required: 2.5 mL serum. 4. Specimen Processing Instructions: None.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Less than 2 mL, leaking specimens, or specimens over 24 hours old. 6. Expected TAT: 10 day. 7. Test Performed in a commercial laboratory (Pappagianis). Contact Mycology Section, 916-3353.
COMP METABOLIC PANEL (NEW)	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 2 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503. 8. Tests in Panel: ALK PHOSPHATASE; ALBUMIN; BILIRUBIN, TOTAL; CALCIUM; CHLORIDE; CREATININE; GLUCOSE; POTASSIUM; PROTEIN TOTAL; SODIUM; AST; CARBON DIOXIDE; UREA NITROGEN; ALT
COMPLEMENT C3	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze specimen if not analyzed within 24 hours. Ship on dry ice. 5. Cause for Rejection: Non-frozen specimen from outside source. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
COMPLEMENT C4	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions:

TEST NAME	SUBMITTING REQUIREMENTS
	Freeze specimen if not analyzed within 24 hours. Ship on dry ice. 5. Cause for Rejection: Non-frozen specimen from outside source. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
COPPER, SERUM	1. Patient Preparation: None. 2. Collection Container: Royal blue acid-washed trace metal vacutainer (no preservative). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Laboratory should draw royal blue acid-washed trace metal tube and allow to clot. Centrifuge and transfer serum into another royal blue acid-washed trace metal tube. Refrigerate. Ship on wet ice. 5. Cause for Rejection: Specimens not drawn in trace metal royal blue tubes. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722.
CORD BLOOD SCREEN	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
CORTISOL AM	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Record time of day specimen was collected on laboratory request.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Grossly hemolyzed specimens. 6. Expected TAT: 48 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
CORTISOL PM	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Record time of day specimen was collected on laboratory request. 5. Cause for Rejection: Grossly hemolyzed specimens. 6. Expected TAT: 48 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
CORTISOL UA PANEL	1. Patient Preparation: Patient must be given instructions to keep urine collection refrigerated during the collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 50 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative required. Mix well before pouring off 50 mL aliquot. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: Unfrozen specimens cannot be analyzed. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: CORTISOL,FREE, (24HR URINE); URN CORTISOL CONCENTRATION; URINE TOTAL VOLUME
C-PEPTIDE	1. Patient Preparation: Fasting (12 hours). 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL

TEST NAME	SUBMITTING REQUIREMENTS
	serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Hemolyzed sample. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
C-REACTIVE PROTEIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Store frozen. Ship on dry ice. 5. Cause for Rejection: Specimen must be frozen if not analyzed within 24 hours. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
CREATININE	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
CREATININE CLEARANCE PANEL	1. Patient Preparation: Patient must be given instructions to keep urine collection refrigerated during the collection period. 2. Collection Container: a. Silicone Stopper Tube (SST) for serum. b. 24-hour urine container. 3. Specimen and Volume Required: a. 1 mL serum. b. 10 mL aliquot urine. 4. Specimen Processing Instructions: a. Refrigerate serum. Ship on wet ice.

TEST NAME	SUBMITTING REQUIREMENTS
	b. No preservative required for urine collection. Mix well before pouring off aliquot. Record 24-hour collection total volume and date and time of collection on request. Urine are stored refrigerated. Ship on wet ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URINE TOTAL VOLUME; CREATININE CLEARANCE; URN CREATININE CONCENTRATION; xCREATININE, SERUM
CRYOGLOBINLIN BATTERY (CRYOBAT)	1. Patient Preparation: Patient must be fasting 10-14 hours. Patient should be sent to laboratory collection area on the fourth floor for specimen collection. 2. Collection Container: 1 red top (no serum separator gel) and 2 blue top (sodium citrate) vacutainer tubes. 3. Specimen and Volume Required: 7 mL whole blood in red top tube and two 4.5 mL in blue top tubes. Once blood is drawn, place all 3 tubes at 37^{o} C immediately. 4. Specimen Processing Instructions: Blood must be placed at 37^{o} C immediately after drawing. Specimen must be received within 48-hours of collection. Mail-in specimens. Battery cannot be performed on this sample. Cryoglobulin only will be assayed: whole blood drawn in plain red top; specimen placed in 37^{o} C incubator to clot; centrifuge specimen at 3600 RPM for 3-5 minutes; immediately separate serum from cells and ship serum at room temperature; do not ship refrigerated; minimum 2 mL serum must be received within 48 hours. 5. Cause for Rejection: Test CANNOT be performed on lipemic specimens. Accurate testing CANNOT be performed if blood is not maintained at 37^{o} C prior to testing. 6. Expected TAT: The next duty day following a 48-hour incubation. Test is

TEST NAME	SUBMITTING REQUIREMENTS
	performed 0730-1530, Monday-Friday. 7. Test Performed in Hematology Bone Marrow Section, 916-4172. 8. Tests in Panel: CRYOGLOBULIN; CRYOFIBRINOGEN; FIBRINOGEN
CRYOPRECIPITATE	1. Patient Preparation: Requests for Cryoprecipitate are made using a completed SF 518. 2. Collection Container: NA. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: Incomplete requests (SF 518s). 6. Expected TAT: 1 hour. 7. Test Performed in Blood Bank, 916-3315/ 5185.
CRYPTOCOCCAL ANTIGEN (BAMC)	1. Patient Preparation: Aseptic technique. 2. Collection Container: Red top tube or CSF container. 3. Specimen and Volume Required: 2.5 mL serum or CSF. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Less than 2 mL, leaking specimens, or specimens over 24 hours old. 6. Expected TAT: 10 days. 7. Test Performed in Mycology Section, 916-3353.
CSF CULTURE	1. Patient Preparation: Disinfect site with iodine. Use aseptic technique to aspirate spinal fluid. Submit samples to the laboratory in labeled tubes as follows: Tube 1 – Chemistry (Tube 1 can never be used for culture). Tube 2 – Hematology. Tube 3 – Microbiology. Tube 4 – Additional requests. 2. Collection Container: Sterile leak-proof CSF collection set. 3. Specimen and Volume Required: Approximately 5 mL into Tube #3 for complete Microbiology work-up (1 mL for bacterial culture only).

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: For volumes less than 3 mL, prioritize order of requests (bacterial, fungal, viral, etc.). Transport immediately to the laboratory. Do not refrigerate. 5. Cause for Rejection: Quantity not sufficient when small volumes are submitted. 6. Expected TAT: 72 hours for bacterial culture. 6 weeks for AFB culture. Gram stains available within 1 hour. AFB smears available within 24 hours of receipt. 7. Test Performed in Microbiology Section, 916-3353.
CT IMMUNO SCREEN PANEL	1. Patient Preparation: Aseptic technique. Collect acute sample upon onset and convalescent sample 2-4 weeks from onset. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: ANTI-MITOCHONDRIAL SCREEN; ANTI-MITOCHONDRIAL TITER; ANTI-SMOOTH MUSCLE SCREEN; ANTI-SMOOTH MUSCLE TITER; ANTI-PARIETAL CELL SCREEN; ANTI-PARIETAL CELL TITER
CYCLOSPORIN MONOCLONAL	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Clotted. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
CYSTINE URN QUAL	1. Patient Preparation: Patient must be given instructions to keep urine collection

TEST NAME	SUBMITTING REQUIREMENTS
	refrigerated during the collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 5 mL aliquot of 24-hour urine collection or random urine. 4. Specimen Processing Instructions: No preservative required. Mix well before pouring off 5 mL aliquot. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: None. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722.
CYTAPHERESIS, THERAPEUTIC	1. Patient Preparation: Specialized procedures that require the use, collection, or removal of blood and blood products for therapeutic reasons require approval and direct consultation with the Transfusion Medicine Medical Director. A request for the therapeutic procedure must be submitted by the requesting physician using the standard consultation form SF 513, which summarizes all pertinent clinical information including diagnosis, type of procedure requested, indications for therapy, suggested frequency of the procedure, and anticipated benefits weighed against potential risks of the procedure. 2. Collection Container: NA. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: Incomplete SF 513. 6. Expected TAT: NA. 7. Test Performed in the Akeroyd Blood Donor Center, Building 1240, 295-4989.
CYTOMEGALOVIRUS IgG/IgM	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship

TEST NAME	SUBMITTING REQUIREMENTS
	on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 5 days. 7. Test Performed in Serology, 916-0402.
D-DIMER	1. Patient Preparation: None. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 4.5 mL plasma. 4. Specimen Processing Instructions: Allow vacutainer tube to draw to level of its vacuum. Gently mix tube after collection to ensure effectiveness of anti-coagulant. Transport to laboratory immediately. Centrifuge 10 minutes, 2500 RPM, remove plasma, freeze. Ship on dry ice. 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462.
DEHYDROEPIANDROSTERONE SULFATE (DHEA-S)	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Hemolyzed or lipemic sample. Non-frozen sample from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
DIALYSATE FLUID	1. Patient Preparation: None. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: 1 mL dialysate fluid. 4. Specimen Processing Instructions: Label with source (port). 5. Cause for Rejection: See Microbiology

TEST NAME	SUBMITTING REQUIREMENTS
	Section, general rejection criteria. 6. Expected TAT: 72 hours. 7. Test Performed in Microbiology Section, 916-3353.
DIGOXIN LEVEL	1. Patient Preparation: Collect 8 to 12 hours after last oral dose, 12 to 14 hours after last intramuscular dose, and 4 to 6 hours after last intravenous dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
DILANTIN LEVEL	1. Patient Preparation: For periodic testing and in situations of suspected inadequate dosage, sampling should be performed just prior to the next dose. In suspected toxicity, sampling is performed at any time. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
DISOPYRAMIDE	1. Patient Preparation: For periodic testing and in situations of suspected inadequate dosage, sampling should be performed just prior to the next dose. In suspected toxicity, sampling is performed at any time. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
DONATION, BLOOD	1. Patient Preparation: Donors should be at least 18 years of age. Donors of age 17 must have parental consent. Donor should weigh at least 110 pounds, should have a light meal before donation, no alcoholic beverages for 12 hours, be in generally good health, and afebrile. 2. Collection Container: NA. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: History of hepatitis, drug addiction involving injection, homosexual activity, diabetes requiring insulin, coronary heart disease permanently disqualify potential donors. Temporary disqualifications include hypotension, hypertension, anemia, positive syphilis serology (STS), travel to malaria endemic areas, exposure to hepatitis, pregnancy, recent child birth, recent surgery, recent transfusion, tattoo within 12 months, inmate of penal or mental institution, and certain other medical conditions. Donors who have taken penicillin should be excluded from donation for 7 days. Use of vitamins, thyroid preparations, or oral contraceptives does not disqualify donors. 6. Expected Procedure Time: 1.5 hours. 7. Appointments can be made at the Akeroyd Blood Donor Center, Building 1240, 295-4989.
ELECTROLYTES PANEL	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 2 hours of collection.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503. 8. Tests in Panel: SODIUM; POTASSIUM; CHLORIDE; CARBON DIOXIDE; ANION GAP (NA-CL-CO2)
ELECTROPHORESIS, SERUM PROTEIN (SPEP)	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Gross hemolysis or lipemia. 6. Expected TAT: 14 days (TAT may vary depending on results obtained). 7. Test Performed in Immunochemistry, 916-5511. 8. Tests in Panel: ALBUMIN FRACTION; ALPHA-1 FRACTION; ALPHA-2 FRACTION; BETA FRACTION; GAMMA FRACTION; ALBUMIN/GLOBULIN (SPEP); PROTEIN, (SPEP) (TOTAL); IG G (SPEP); IG A (SPEP); IG M (SPEP); IMMUNOFIXATION TEST; PATH REVIEW ELECTROPHORESIS
EMERGENCY RELEASE OF BLOOD/COMPONENTS	1. Patient Preparation: NA. 2. Collection Container: NA (submit a pre-transfusion specimen at earliest opportunity). 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: Follow-up should occur as time permits. This entails: a. Completed BAMC OP 648. b. Collect one appropriately labeled EDTA lavender top whole blood tube. 5. Cause for Rejection: No patient ID (need, as a minimum, trauma number). 6. Expected TAT: 5 minutes. 7. Test Performed in Blood Bank, 916-3315/5185.
ENDOMYSIAL	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
ANTIBODY (IgA)	2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 0.5 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 7-10 days. 7. Test Performed by Smithkline, 1-800-377-8448.
EPSTEIN BARR VIRAL (EBV) PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 7 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: EBNA IgG; EBV IgG; EBV IgM
ERYTHROCYTE SEDIMENTATION RATE (ESR)	1. Patient Preparation: None. 2. Collection Container: Black top tube. 3. Specimen and Volume Required: Citrated plasma, fill to fill line of black top tube. 4. Specimen Processing Instructions: Gently mix tube after collection to ensure anti-coagulant is effective. 5. Cause for Rejection: Over and under filled tubes. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-4454 and at Troop Medical Clinic, 295-4503.
ERYTHROPOIETIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship

TEST NAME	SUBMITTING REQUIREMENTS
	on wet ice. 5. Cause for Rejection: Hemolysis or lipemia. 6. Expected TAT: 3 days. 7. Test Performed by Smithkline, 1-800-377-8448.
ESTRADIOL, SERUM (E2)	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Gross hemolysis or lipemia. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
ESTRIOL, TOTAL	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Separate serum from cells, transfer serum to another transport tube and freeze. Ship on dry ice. 5. Cause for Rejection: Must be stored frozen until analysis. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722.
ETHANOL (MEDICAL)	1. Patient Preparation: Do not use alcohol wipe to clean arm before drawing blood. Disinfect arm using Betadine wipe. 2. Collection Container: Gray top tube (sodium fluoride) or red top tube. 3. Specimen and Volume Required: 2 mL serum or plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours.

TEST NAME	SUBMITTING REQUIREMENTS
	7. Test Performed in Clinical Chemistry, 916-2043.
ETHOSUXIMIDE	1. Patient Preparation: For periodic testing and in situations of suspected inadequate dosage, sampling should be performed just prior to the next dose. In suspected toxicity, sampling is performed at any time. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
ETHYLENE GLYCOL	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 48 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
FACTOR V LEIDEN	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 3 mL whole blood. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-7 days. 7. Test Performed WHMC Hem/Onc Laboratory, (210) 292-5523.
FEBRILE AGGLUTIN PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper

TEST NAME	SUBMITTING REQUIREMENTS
	Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected, labeled, or hemolyzed specimen. 6. Expected TAT: 7 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: BRUCELLA TITER; FRANCISELLA TITER
FECAL FAT, QUAL	1. Patient Preparation: None. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Fresh, unpreserved stool. 4. Specimen Processing Instructions: Do NOT preserve. Refrigerate if transport is delayed. Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. Presence of preservative. 6. Expected TAT: 2 days. 7. Test Performed in Microbiology Section, 916-3353.
FECAL LEUKOCYTE	1. Patient Preparation: None. 2. Collection Container: Sterile jar-type container. 3. Specimen and Volume Required: Fresh, unpreserved stool. 4. Specimen Processing Instructions: Do NOT preserve. Refrigerate if transport is delayed. Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. Presence of preservative. Contaminated with urine. 6. Expected TAT: 1-4 hours. 7. Test Performed in Microbiology Section, 916-3353 during normal duty hours (can be ordered as O&P). Test performed in Hematology Section, 916-4454, STAT, only when Microbiology Section is not available.
FERRITIN/IRON	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
PANEL (BAMC)	2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Separate from cells, transfer to transport tube, refrigerate. Ship on wet ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: IRON BINDING CAPACITY, TOTAL; IRON; FERRITIN; FE SAT%
FIBRINOGEN	1. Patient Preparation: None. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 3 mL plasma. 4. Specimen Processing Instructions: Tube must be filled to the fill line. The tube(s) must be mixed gently after collection. Avoid specimen hemolysis and clotting. Transport to the laboratory at room temperature. 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462.
FLU A (INFLUENZA ANTIGEN)	1. Patient Preparation: None. 2. Collection Container: Sterile container for nasal wash, or two sterile swabs. 3. Specimen and Volume Required: 2-3 mL nasal wash, nasal aspirate, or two sterile swabs. Pharyngeal swabs are less optimal. 4. Specimen Processing Instructions: Transport to laboratory immediately. 5. Cause for Rejection: Bloody specimens. 6. Expected TAT: During influenza season (January through April), influenza antigens will be run within 1 hour of arrival in lab, from 0730-2100, Monday-Friday and 0730-1530 on Saturday and Sunday. Specimens submitted

TEST NAME	SUBMITTING REQUIREMENTS
	at other times will be run at the beginning of the next duty day. 7. Test Performed in Microbiology Section, 916-3353.
FRAGILE X	1. Patient Preparation: Complete Keesler AFB Form 345 and submit with sample. 2. Collection Container: EDTA lavender top tube or ACD yellow top tube. 3. Specimen and Volume Required: 3 mL whole blood. 4. Specimen Processing Instructions: Ship at room temperature. 5. Cause for Rejection: Call (210) 916-1220. 6. Expected TAT: 3-4 weeks. 7. Test Performed by AF Genetics Center, Keesler AFB (228) 377-6393.
FSH/LH (FOLLICLE STIMULATING HORMONE/ LUTENINIZING HORMONE)	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Frozen. Ship on dry ice. 5. Cause for Rejection: Non-frozen specimens from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511. 8. Tests in Panel: FOLLICLE STIMULATING HORMONE; LUTENINIZING HORMONE
FTA PANEL (BAMC)	1. Patient Preparation: Aseptic technique, not performed on CSF or body fluids only. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402.

TEST NAME	SUBMITTING REQUIREMENTS
	8. Tests in Panel: RPR, (RAPID PLASMA REAGIN) SCREEN; RPR QUANTITATIVE; FTA
FUNGAL BLOOD	1. Patient Preparation: Aseptic technique. 2. Collection Container: ®Isolator tube or Bactec bottle. Isolator tubes are available at Infectious Disease Service. 3. Specimen and Volume Required: 8 mL blood. 4. Specimen Processing Instructions: Consult Infectious Disease Service for approval, and notify Mycology Section. 5. Cause for Rejection: Less than 2 mL, leaking specimens, or specimens over 24 hours old. 6. Expected TAT: 6 weeks. 7. Test Performed in Mycology Section, 916-3353.
FUNGAL COMPLEMENT FIXATION (BAMC)	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 5 mL blood; 2 mL CSF. 4. Specimen Processing Instructions: Collect blood in a red top tube, separate serum prior to submission. Collect CSF in standard collection kit. Test request requires previous positive fungal serological by EIA or Immunodiffusion methodology. 5. Cause for Rejection: See Microbiology Section, general rejection criteria. 6. Expected TAT: 10 days. 7. Test Performed at TDH. For more information call Mycology Section, 916-3353.
FUNGAL IMMUNODIFFUSION (BAMC)	1. Patient Preparation: Aseptic technique. 2. Collection Container: Red top tube. 3. Specimen and Volume Required: 2.5 mL serum. 4. Specimen Processing Instructions: Aspergillus completed only upon separate request. 5. Cause for Rejection: Less than 2 mL,

TEST NAME	SUBMITTING REQUIREMENTS
	leaking specimens, or specimens over 24 hours old. 6. Expected TAT: 10 days. 7. Test Performed in Mycology Section, 916-3353. 8. Tests in Panel: HISTO H BAND ID; HISTO M BAND ID; COCCIDIO IDTP ID; COCCIDIO IDCF ID; BLASTOMYCES ID
FUNGAL MISC	1. Patient Preparation: Aseptic technique. 2. Collection Container: See number 3 below. 3. Specimen and Volume Required: a. 3-10 mL abscess, sterile tube. b. 10 mL blood, ®Isolator tube. Call Infectious Disease Service for Isolator tubes. c. 5-10 mL CSF, sterile tube. d. Eye, corneal, scrapings, submitted on specialized fungal plated media, submitted in sterile containers. e. 3-10 mL fluid, sterile cup. f. Hair, skin, and nails, representative portion, specialized fungal plated media, or sterile container. g. Oral thrush, submit portion, sterile cup. h. Lesion, place in 1 mL saline, sterile cup. i. 5-10 mL sputum, sterile cup. j. Tissue/bone, sterile cup. Do not allow specimen to dry out, small amount of saline may be added. 4. Specimen Processing Instructions: Ship sample ASAP. Refrigerate if transport is delayed. Ship on wet ice. 5. Cause for Rejection: Transport delay more than 24 hours for local specimens, and shipped specimens must be received within 72 hours. 6. Expected TAT: 6 weeks. 7. Test Performed in Mycology Section, 916-3353.
FUNGAL PANEL (EIA)	1. Patient Preparation: Aseptic technique.

TEST NAME	SUBMITTING REQUIREMENTS
(BAMC)	2. Collection Container: Red top tube or CSF tube. 3. Specimen and Volume Required: 2.5 mL serum or CSF. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Less than 2 mL, leaking specimens, or specimens over 24 hours old. 6. Expected TAT: 10 days. 7. Test Performed in Mycology Section, 916-3353. 8. Tests in Panel: CRYPTOCOCCAL ANTIGEN (BAMC); COCCIDIODIES IgM EIA (BAMC); COCCIDIODIES IgG EIA (BAMC)
G-6-PDH QUANTITATIVE (BAMC)	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 5 mL whole blood. 4. Specimen Processing Instructions: Submit whole blood, do NOT separate cells or freeze specimen. Refrigerate. Ship on wet ice. 5. Cause for Rejection: Specimen cannot be analyzed if over 7 days old, separated, or frozen. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
GASTRIN	1. Patient Preparation: Fasting. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Gross hemolysis or lipemia. Non-frozen specimen from outside source. 6. Expected TAT: 10 days. 7. Test Performed in Immunochemistry, 916-5511.
GENITAL CULTURE	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: Selective media. Submit selective media to the laboratory in closed CO_2 pouch. 3. Specimen and Volume Required: Genital exudate. 4. Specimen Processing Instructions: Inoculate specimen using Dacron or Rayon swab onto selective media by streaking the media by the swab in a "Z" pattern. Place in CO_2 pouch and transport to Specimen Processing immediately. 5. Cause for Rejection: Plate not delivered immediately; plate received cold to touch (refrigerated). Out-dated media. 6. Expected TAT: 72 hours. 7. Test Performed in Microbiology Section, 916-3353.
GENTAMICIN PEAK	1. Patient Preparation: For intravenous therapy, peak concentrations occurs 15 to 30 minutes following completion of infusion. For intramuscular therapy, peak concentration occurs 45 to 75 minutes following administration. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
GENTAMICIN RANDOM	1. Patient Preparation: None. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
GENTAMICIN TROUGH	1. Patient Preparation: For intravenous/

TEST NAME	SUBMITTING REQUIREMENTS
	intramuscular therapy, trough concentration occurs not more than 30 minutes before next dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
GGT	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
GIARDIA LAMBLIA ANTIBODY IFA	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3 days. 7. Test Performed by Smithkline, 1-800-377-8448.
GLIANDIN ANTIBODIES (IgG, IgA)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 0.5 mL serum. 4. Specimen Processing Instructions: Ship on wet ice.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
GLUCOSE	1. Patient Preparation: None. 2. Collection Container: Sodium fluoride or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL serum or plasma. 4. Specimen Processing Instructions: If utilizing any tube other than a gray top, centrifuge and remove from clot within 30 minutes of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
GLUCOSE TOLERANCE TEST (GTT)	1. Patient Preparation: Procedure must be scheduled. Patient is to follow a 150 carbohydrate meal for three consecutive days prior to the procedure. Patient is required to fast 10 to 14 hours prior to the start of this test. Alcohol should not be consumed seven days prior. Smoking and mild exercise should be avoided during the test. 2. Collection Container: Sodium fluoride (gray top tube). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: If utilizing any tube other than a gray top, centrifuge and remove from clot within 30 minutes of collection. Procedure is halted if FBS is greater than 126 mg/dL. Once FBS result is obtained, give pregnant patient 100 grams of Glucola and all others 75 grams of Glucola. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 30 minutes. 7. Test Performed in Clinical Chemistry, 916-2043.
GLUCOSE,2 HOUR	1. Patient Preparation: Patient is to eat

TEST NAME	SUBMITTING REQUIREMENTS
POST PRANDIAL	2 hours prior to having their blood drawn. 2. Collection Container: Sodium fluoride (gray top tube). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Draw 2 hours after meal ingestion. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
GLUCOSE,CSF	1. Patient Preparation: None. 2. Collection Container: Sterile CSF collection container. 3. Specimen and Volume Required: 1 mL CSF. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1 hour. 7. Test Performed in Clinical Chemistry, 916-2043.
GLYCOHEMOGLOBIN	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 5 mL whole blood. 4. Specimen Processing Instructions: Refrigerate. Ship on wet ice. 5. Cause for Rejection: More than 7 days old, gross lipemia, clots. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
GRAM STAIN	1. Patient Preparation: Gram stains are normally performed as routine on sputum cultures, wound cultures, sterile body fluids (except those submitted in BACTEC bottles) and tissues. For optimal gram stain results a second swab or specimen should be submitted. Gram stains are not normally performed on urine or stool samples. 2. Collection Container: Transport swab or second specimen.

TEST NAME	SUBMITTING REQUIREMENTS
	3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: Items listed under Microbiology general rejection criteria 6. 6. Expected TAT: 2 hours, STAT within 1 hour. 7. Test Performed in Microbiology Section, 916-3353 and Troop Medical Clinic, 295-4503.
GRANULOCYTES, APHERESIS, DONATION	1. Patient Preparation: Direct consultation with the Medical Director or Chief is required. 2. Collection Container: NA. 3. Specimen and Volume Required: NA 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: NA. 6. Expected TAT: NA. 7. Procedure Performed in the Akeroyd Blood Donor Center, Building 1240, 295-4989.
HANSEL STAIN	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Urine samples received more than 2 hours from collection time. 6. Expected TAT: 1-3 days. 7. Test Performed in Urinalysis, 916-2167.
HAPTOGLOBIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Serum must be stored frozen. Ship on dry ice. 5. Cause for Rejection: Specimens stored unfrozen for more than 24 hours CANNOT be analyzed. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
HDL	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Normally performed as part of Lipid Profile. Ship on dry ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
HEAVY METALS SCREEN, URINE (PANEL)	1. Patient Preparation: Instruct patient to keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 250 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: Laboratory will add 5 mL of concentrated Nitric Acid to the 24-hour urine collection. After mixing well, aliquot 250 mL of the 24-hour urine collected into a labeled separate container. Record 24-hour collection total volume and date and time of collection on request. Ship on dry ice. 5. Cause for Rejection: pH should be less than 5.0. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URINE TOTAL VOLUME; LEAD SCREEN; MERCURY; ARSENIC
HELICOBACTER PYLORI ANTIGEN	1. Patient Preparation: NA. 2. Collection Container: Sterile, leak-proof container. 3. Specimen and Volume Required: 5 mL fresh stool. 4. Specimen Processing Instructions: Deliver to laboratory immediately. Specimens from off-post should be kept frozen and shipped on ice. 5. Cause for Rejection: Specimens

TEST NAME	SUBMITTING REQUIREMENTS
	submitted on swabs. Preserved or formed stool specimens. 6. Expected TAT: Test performed Monday, Wednesday, and Friday. Results available within 24 hours of test date. 7. Test Performed in Microbiology Section, 916-3353.
HELICOBACTER PYLORI IgG	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled, hemolyzed specimen. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402.
HELICOBACTER PYLORI IgM	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
HEMATOCRIT BODY FLUID (SPUN)	1. Patient Preparation: None. 2. Collection Container: Lavender top tube (EDTA). Gently mix tube immediately after collection. 3. Specimen and Volume Required: Body fluid, ½ volume of tube. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Clotted specimen. 6. Expected TAT: 1 hour. 7. Test Performed in Hematology Section, 916-4454.
HEMOGLOBIN VARIANT PANEL (BAMC)	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top

TEST NAME	SUBMITTING REQUIREMENTS
	tube. 3. Specimen and Volume Required: 5 mL whole blood. 4. Specimen Processing Instructions: Refrigerate. Ship on wet ice. 5. Cause for Rejection: Gross lepemia, more than 7 days old, clots. 6. Expected TAT: 10 days. 7. Test Performed in Immunochemistry, 916-5511. 8. Tests in Panel: HEMOGLOBIN A (BAMC); HEMOGLOBIN S (BAMC); HEMOGLOBIN C (BAMC); HEMOGLOBIN OTHER (BAMC); HEMOGLOBIN A2 (BAMC); HEMOGLOBIN F (BAMC); PATH REVIEW ELECTROPHORESIS
HEMOSIDERIN (HSID)	1. Patient Preparation: Follow clean catch urine instructions. 2. Collection Container: Sterile urine container. 3. Specimen and Volume Required: Minimum 10 mL urine. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: Specimen more than 48 hours old. 6. Expected TAT: 24 hours. Specimen arriving in the afternoon will be processed the following workday. Test performed Monday-Friday. 7. Test Performed in Hematology Bone Marrow Section, 916-4172.
HEPATIC FUNCTION PAN (WHMC/BAMC)	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503. 8. Tests in Panel: ALBUMIN; BILIRUBIN,

TEST NAME	SUBMITTING REQUIREMENTS
	TOTAL; ALK PHOSPHATASE; AST; ALT; BILIRUBIN, DIRECT; TOTAL PROTEIN
HEPATITIS A ANTIBODY, TOTAL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS A VIRUS ANTIBODY IGM	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS B CORE ANTIBODY IGM	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS B CORE ANTIBODY TOTAL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly

TEST NAME	SUBMITTING REQUIREMENTS
	collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS B SURFACE ANTIBODY	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS B SURFACE ANTIGEN	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS Be ANTIBODY	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS Be ANTIGEN	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS C RIBA	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 7 days. 7. Test Performed at ViroMed Laboratories, 916-0402.
HEPATITIS C VIRUS ANTIBODY	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HEPATITIS SURFACE ANTIGEN, CONFIRMATION (HBSAG CONFIRMATION)	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1-2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Hepatitis, 916-3353.
HERPES 1 & 2 ANTIBODIES	1. Patient Preparation: Aseptic technique. Collect acute sample upon onset of illness and convalescent sample 2-4 weeks from onset. 2. Collection Container: Silicone Stopper

TEST NAME	SUBMITTING REQUIREMENTS
	Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected, labeled, or hemolyzed specimen. 6. Expected TAT: 5 days. 7. Test Performed in Serology, 916-0402.
HERPES CULTURE	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. 2. Collection Container: Virocult swab or sterile container. 3. Specimen and Volume Required: Body fluid or tissue (except serum or plasma). 4. Specimen Processing Instructions: Transport delays over 48 hours, the sample should be frozen. Ship on dry ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 7 days. 7. Test Performed in Virology, 916-2421.
HERPES DIRECT EXAMINATION (DFA)	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. Coordination with laboratory required. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Cellular material from lesion. 4. Specimen Processing Instructions: Collect cellular sample using sterile swab. Smear cellular material onto labeled glass slide. Place slide in sterile container and transport. Each request should be accompanied with a separate order and sample for Herpes culture. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 1 day for DFA slides. 7. Test Performed in Virology, 916-2421.
HERPES I/II AB	1. Patient Preparation: Complete IERA Form

TEST NAME	SUBMITTING REQUIREMENTS
PROFILE IgG	03 and submit with sample. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 5-7 days. 7. Test Performed by Epidemiology Lab, Brooks AFB, (210) 536-8378.
HISTOPLASMA ANTIGEN	1. Patient Preparation: None. 2. Collection Container: Plastic vial. 3. Specimen and Volume Required: 10 mL urine/serum/CSF. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 48 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
HLA B27	1. Patient Preparation: None. 2. Collection Container: 2 ACD yellow top tubes. 3. Specimen and Volume Required: 20 mL whole blood. 4. Specimen Processing Instructions: Ship at room temperature. 5. Cause for Rejection: More than 48 hrs old specimen. 6. Expected TAT: 7-10 days. 7. Test Performed by WHMC TPLT Immunology, (210) 292-7510.
HOMOCYSTEINE	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 1 mL plasma or serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly

TEST NAME	SUBMITTING REQUIREMENTS
	collected and improperly labeled. 6. Expected TAT: 3 days. 7. Test Performed by Smithkline, 1-800-377-8448.
HUMAN GROWTH HORMONE (HGH)	1. Patient Preparation: Fasting. Patient must avoid stress and be at rest at least 30 minutes prior to specimen collection. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Record patient age on request. Ship on dry ice. 5. Cause for Rejection: Gross hemolysis or lipemia. Non-frozen specimen from outside source. 6. Expected TAT: 10 days. 7. Test Performed in Immunochemistry, 916-5511.
HUMAN PARVOVIRUS B19 ANTIBODY	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 0.5 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Hemolysis, lipemia, or icteric. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
ICTOTEST	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in: Urinalysis, 916-2167 and Troop Medical Clinic, 295-4503.
IMMUNOGLOBULIN A	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Serum must be stored frozen. Ship on dry ice. 5. Cause for Rejection: Specimens stored unfrozen for more than 24 hours CANNOT be analyzed. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
IMMUNOGLOBULIN E	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Gross hemolysis or lipemia. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
IMMUNOGLOBULIN G	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Serum must be stored frozen. Ship on dry ice. 5. Cause for Rejection: Specimens stored unfrozen for more than 24 hours CANNOT be analyzed. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
IMMUNOGLOBULIN M	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum.

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: Serum must be stored frozen. Ship on dry ice. 5. Cause for Rejection: Specimens stored unfrozen for more than 24 hours CANNOT be analyzed. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
IMMUNOGLOBULINS, QUANTITATIVE	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Serum must be stored frozen. Ship on dry ice. 5. Cause for Rejection: Specimens stored unfrozen for more than 24 hours CANNOT be analyzed. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: IMMUNOGLOBULIN G; IMMUNOGLOBULIN A; IMMUNOGLOBULIN M
INSULIN	1. Patient Preparation: Fasting. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Separate serum from cells ASAP and freeze serum. Ship on dry ice. 5. Cause for Rejection: Hemolysis. Non-frozen specimen from outside source. 6. Expected TAT: 10 days. 7. Test Performed in Immunochemistry/RIA, 916-5511.
INSULIN-LIKE GROWTH FACTOR I	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on dry ice.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Hemolysis or lipemia. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
IRON	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST) 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Refrigerate serum. Ship on wet ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
IRRADIATED BLOOD COMPONENTS	1. Patient Preparation: Direct consultation with the Medical Director or Chief is required. 2. Collection Container: NA. 3. Specimen and Volume Required: NA 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: NA. 6. Expected TAT: After component processing, irradiation requires an additional 8-10 minutes. 7. Test Performed in the Blood Bank, 916-3315/5185.
JO-1 ANTIBODY	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Hemolysis or lipemia. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
KETONE BODIES	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top).

TEST NAME	SUBMITTING REQUIREMENTS
	3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
LACTIC ACID	1. Patient Preparation: Patient should avoid exercise of arm prior and during collection. 2. Collection Container: Sodium fluoride (gray top tube). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Submit on ice or frozen. Centrifuge and separate cells from plasma within 15 minutes of receipt. 5. Cause for Rejection: Submitted at room temperature or unfrozen. 6. Expected TAT: 1 hour. 7. Test Performed in Clinical Chemistry, 916-2043.
LD	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove serum from clot within 1 hour of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
LEAD SCREEN	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube; capillary tube (pediatric); 7 mL (adult). 3. Specimen and Volume Required: 7 mL whole blood (adult); 3 mL or capillary whole blood (pediatric). 4. Specimen Processing Instructions: Mix

TEST NAME	SUBMITTING REQUIREMENTS
	specimen after collection to prevent clotting. Refrigerate whole blood if transport delayed. Ship on wet ice. 5. Cause for Rejection: Frozen or clotted specimens. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
LEGIONELLA ANTIBOBY EIA,URINE	1. Patient Preparation: Aseptic technique. 2. Collection Container: Sterile containers. 3. Specimen and Volume Required: 2 mL urine. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402.
LEGIONELLA ANTIBODY	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected, labeled, or hemolyzed specimen. 6. Expected TAT: 7 days. 7. Test Performed in Serology, 916-0402.
LEGIONELLA CULTURE	1. Patient Preparation: Normally performed on respiratory samples. 2. Collection Container: Sterile screw top container. 3. Specimen and Volume Required: 1 mL sputum (for bronchial brush submit brush in 1 mL of fluid). 4. Specimen Processing Instructions: Indicate under comment “culture for Legionella”. Transport ASAP, refrigerate if delay of more than 2 hours. 5. Cause for Rejection: Improper collection.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 48 hours 7. Test Performed in Microbiology Section, 916-3353.
LEUKOCYTE ALKALINE PHOSPHATASE SCORE (LAPS)	1. Patient Preparation: None. 2. Collection Container: Sodium Heparin tube (green top). 3. Specimen and Volume Required: a. Local: 4.5 mL whole blood in sodium heparin tube (green top). b. Mail-in 4 appropriately labeled glass slides. 4. Specimen Processing Instructions: a. Local: Sample must be delivered to laboratory technologist within 4 hours of collection. b. Mail-in 4 smears made from patient whole blood are required. Smears, glass slides, must be appropriately labeled. 4 appropriately labeled control slides must accompany this request. Control slides can be made from a normal patient (i.e., normal CBC). Ship slides refrigerated. 5. Cause for Rejection: Mail in smears without accompanying control smears. Sodium Heparin tube submitted more than 4 hours post collection. Frozen or broken smears. 6. Expected TAT: 24-48 hours. Specimen arriving in the afternoon will be processed the following workday. Test performed Monday-Friday. 7. Test Performed in Hematology Bone Marrow Section, 916-4172.
LIDOCAINE	1. Patient Preparation: Steady state is usually obtained 30 to 90 minutes following the beginning of infusion if a loading dose is given and 5 to 10 hours without a loading dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
LIPASE	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
LIPID PROFILE	1. Patient Preparation: Patient should fast 12-14 hours prior to collection. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Refrigerate if transport is delayed. Ship on wet ice. 5. Cause for Rejection: Patient must fast 12-14 hours. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: CHOL:HDL RATIO; CHOLESTEROL; HDL; LOW DENSITY LIPOPROTEIN; TRIGLYCERIDE
LITHIUM	1. Patient Preparation: None. 2. Collection Container: Sodium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Commonly drawn 12 hours after last dose. Centrifuge and remove plasma from clot within 4 hours of collection. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours.

TEST NAME	SUBMITTING REQUIREMENTS
	7. Test Performed in Clinical Chemistry, 916-2043.
LUPUS PANEL	1. Patient Preparation: None. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 3 mL plasma. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 3-7 days. 7. Test Performed WHMC Hem/Onc Laboratory, (210) 292-7198.
LYME ANTIBODY	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402.
LYSOZYME	1. Patient Preparation: Avoid alcohol. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Hemolysis or lipemia. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
MAGNESIUM	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Hemolysis.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
MALARIA IDENTIFICATION	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 5 mL whole blood. Mix gently immediately after collection. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. Contaminated, Hemolyzed, or Lipemic samples. 6. Expected TAT: 3 days. 7. Test Performed in Microbiology Section, 916-3353.
MALARIA SMEARS	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 5 mL whole blood. Mix gently immediately after collection. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. Contaminated, Hemolyzed, or Lipemic samples. 6. Expected TAT: 1 hour. 7. Test Performed in Hematology Section, 916-4454.
MANUAL DIFFERENTIAL NOTE: Performed when indicated by automated differential flags or if authorized by supervisor or medical director of hematology.	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: Minimum 3-5 mL whole blood. 4. Specimen Processing Instructions: Allow vacutainer to draw to the level of its vacuum, mix gently. Transport to laboratory at room temperature. Must be received within 8 hours. 5. Cause for Rejection: Clotted, hemolyzed, or quantity not sufficient, age of specimen more than 12 hours. 6. Expected TAT: 8 hours.

TEST NAME	SUBMITTING REQUIREMENTS
	7. Test Performed in Hematology Section, 916-4454. 8. Tests in Panel: SEGS; BANDS; LYMPH; MONO; EOS; BASOPHIL; ATYPICAL LYMPHS; METAMYELOCYTES; PLATELET ESTIMATE; ANISOCYTOSIS; POIKILOCYTOSIS; MACROCYTES; POLYCHROMASIA; HYPOCHROMASIA; MICROCYTOSIS; RBC MORPH; NUCLEATED RBC/100 WBC; BLASTS; PROMYELOCYTE; MYELO; OTHER WBC; BASO STI; TOXIC GRAN; CORRECTED WHITE BLOOD COUNT; ECHINOCYTES; DACROCYTES; ACANTHOCYTES; CODOCYTES; SCHISTOCYTES; OVALOCYTES; STOMATOCYTES; SMUDGE CELLS; DOHLE BODIES; HOWELL JOLLY BODIES
METHOTREXATE	1. Patient Preparation: Collect 24, 48 or 72 hours after dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: Protect from light. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
METHYLMALONIC ACID	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
MONOSPOT	1. Patient Preparation: None. 2. Collection Container: Red top tube. 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: None.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Hemolysis or quantity not sufficient. 6. Expected TAT: 3-5 days. 7. Test Performed in Hematology Section, 916-4454 and Troop Medical Clinic, 295-4503.
MUMPS ANTIBODY	1. Patient Preparation: Aseptic technique. Collect acute sample upon onset and convalescent sample 2-4 weeks from onset. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Serology, 916-0402.
MYCOPLASMA IgG ANTIBODY	1. Patient Preparation: Aseptic technique. Collect acute sample upon onset and convalescent sample 2-4 weeks from onset. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 7 days. 7. Test Performed in Serology, 916-0402.
MYOGLOBIN	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Grossly Hemolyzed. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
MYOGLOBIN, URINE	1. Patient Preparation: None. 2. Collection Container: Plastic vial.

TEST NAME	SUBMITTING REQUIREMENTS
	3. Specimen and Volume Required: 5 mL urine. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
NASAL SMEAR	1. Patient Preparation: None. 2. Collection Container: Nasal smear swab. 3. Specimen and Volume Required: Nasal cellular material. 4. Specimen Processing Instructions: Transport to laboratory ASAP. 5. Cause for Rejection: Dry swab. 6. Expected TAT: 8 hours. 7. Test Performed in Hematology Section, 916-4454.
O&P (INTESTINAL PARASITES)	1. Patient Preparation: One fresh stool each day for 3 consecutive days. 2. Collection Container: PVA O&P Collection Kit. 3. Specimen and Volume Required: Fresh stool in PVA preservative. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Microbiology Section, 916-3353.
OCCULT BLOOD	1. Patient Preparation: None. 2. Collection Container: Hemocult card. 3. Specimen and Volume Required: Fresh stool. 4. Specimen Processing Instructions: Transfer fresh stool from collection container to Hemocult card using a clean wooden disposable applicator stick. 5. Cause for Rejection: Improperly collected or unlabeled. 6. Expected TAT: 2 days. 7. Test Performed in Microbiology Section,

TEST NAME	SUBMITTING REQUIREMENTS
	916-3353 and Troop Medical Clinic, 295-4503.
OCCUPATIONAL HEALTH PANEL	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Refrigerate if transport is delayed. Ship on wet ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: HDL; CHOLESTEROL
OSMOLALITY	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top) or urine collection container. 3. Specimen and Volume Required: 2 mL plasma or urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
P24 ANTIGEN	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 7 days. 7. Test Performed at ViroMed Laboratories, 916-0402.
PARASITE CULTURE	1. Patient Preparation: Aseptic technique. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: CSF, cornea scraping, or conjunctival fluid.

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: Notify Microbiology Section prior to collection of specimen to coordinate media preparation. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Microbiology Section, 916-3353.
PARATHORMONE (PTH)	1. Patient Preparation: Fasting. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Separate serum from cells ASAP and freeze serum. Ship on dry ice. 5. Cause for Rejection: Hemolyzed sample. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511. 8. Tests in Panel: PARATHYROID HORMONE; CALCIUM (PTH)
PERI STEM CELL	1. Patient Preparation: Procedure performed in Bone Marrow Transplant Laboratory. 2. Collection Container: Disposable sterile cryogenic vial. 3. Specimen and Volume Required: 0.5 mL peripheral blood stem cells. 4. Specimen Processing Instructions: After collection, transport to laboratory ASAP at room temperature. 5. Cause for Rejection: Specimen contamination. 6. Expected TAT: Same day. 7: Test Performed in Flow Cytometry, 916-4123. 8. Tests in Panel: CD34; CD33; CD11b; CD15
PERIPHERAL BLOOD STEM CELLS, AUTOLOGOUS	1. Patient Preparation: Direct consultation with the Medical Director or Chief is required.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: NA. 3. Specimen and Volume Required: NA 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: NA. 6. Expected TAT: NA. 7. Test Performed in the Akeroyd Blood Donor Center, Building 1240, 295-4989.
PHENOBARBITAL	1. Patient Preparation: For periodic testing and in situations of suspected inadequate dosage, sampling should be performed just prior to the next dose. In suspected toxicity, sampling is performed at any time. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
PHLEBOTOMY, THERAPEUTIC	1. Patient Preparation: Specialized procedures that require the use, collection, or removal of blood and blood products for therapeutic purposes require approval and direct consultation with the Transfusion Medicine Medical Director. A request for the therapeutic procedure must be submitted by the requesting physician using the standard consultation form SF 513, which summarizes all pertinent clinical information including diagnosis, type of procedure requested, indications for therapy, suggested frequency of the procedure, and anticipated benefits weighed against potential risks of the procedure. 2. Collection Container: NA. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: NA. 6. Expected TAT: NA. 7. Procedure Performed in the Akeroyd Blood

TEST NAME	SUBMITTING REQUIREMENTS
	Donor Center, Building 1240, 295-4989.
PHOSPHORUS	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove plasma from clot within 4 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
PINWORM PREPARATION	1. Patient Preparation: Avoid fecal contamination. 2. Collection Container: Pinworm paddle, clear Scotch tape prep. 3. Specimen and Volume Required: Apply paddle to perianal area in the morning. Avoid fecal contamination. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 2 days. 7. Test Performed in Microbiology Section, 916-3353.
PLASMA EXCHANGE	1. Patient Preparation: Specialized procedures that require the use, collection, or removal of blood and blood products for therapeutic purposes require approval and direct consultation with the Transfusion Medicine Medical Director. A request for the therapeutic procedure must be submitted by the requesting physician using the standard consultation form SF 513, which summarizes all pertinent clinical information including diagnosis, type of procedure requested, indications for therapy, suggested frequency of the procedure, and anticipated benefits weighed against potential risks of the procedure. 2. Collection Container: NA. 3. Specimen and Volume Required: NA.

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: NA. 5. Cause for Rejection: NA. 6. Expected TAT: NA. 7. Procedure Performed by the Akeroyd Blood Donor Center, Building 1240, 295-4989.
PLASMA FIBRINOGEN SPLIT PRODUCTS	1. Patient Preparation: None. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 3 mL plasma. 4. Specimen Processing Instructions: Tube must be filled to fill line. The tube(s) must be mixed gently after collection. Avoid specimen hemolysis and clotting. Transport to the laboratory room temperature. 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462.
PLASMA HEMOGLOBIN	1. Patient Preparation: Usually performed as a STAT procedure for dialysis. Patients coordinate request with Reference Processing, 295-4254/4904. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: Separate plasma immediately. 5. Cause for Rejection: Whole blood or severely hemolyzed specimens. 6. Expected TAT: STAT procedure by appointment only. 7. Test Performed in Reference Chemistry, 295-4722.
PLASMA, FRESH FROZEN (FFP)	1. Patient Preparation: Completed SF 518. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 7 mL whole blood. 4. Specimen Processing Instructions: NA.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Incomplete SF 518. 6. Expected TAT: 45 minutes. 7. Test Performed in Blood Bank, 916-3315/ 5185.
PLATELET CONCENTRATE	1. Patient Preparation: NA. 2. Collection Container: NA. Specimen not necessary if Blood Bank has previous patient history (ABO/Rh). 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: Incomplete requests (SF 518s). 6. Expected TAT: 45 minutes. 7. Test Performed in Blood Bank, 916-3315/ 5185.
PLATELETS, APHERESIS, DONATION	1. Patient Preparation: Donors should be at least 18 years of age. Donors of age 17 must have parental consent. Donor should weigh at least 110 pounds, should have a light meal before donation, no alcoholic beverages for 12 hours, be in generally good health, and afebrile. 2. Collection Container: NA. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: History of hepatitis, drug addiction involving injection, homosexual activity, diabetes requiring insulin, coronary heart disease permanently disqualify potential donors. Temporary disqualifications include hypotension, hypertension, anemia, positive syphilis serology (STS), travel to malaria endemic areas, exposure to hepatitis, pregnancy, recent child birth, recent surgery, recent transfusion, tattoo within 12 months, inmate of penal or mental institution, and certain other medical conditions. Donors who have taken penicillin should be excluded from donation for 7 days. Use of vitamins, thyroid preparations, or oral contraceptives does not disqualify donors.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected Procedure Time: 1.5 hours. 7. Appointments can be made at the Akeroyd Blood Donor Center, Building 1240, 295-4989.
PORPHOBILINOGEN, URINE	1. Patient Preparation: None. 2. Collection Container: Random urine container. 3. Specimen and Volume Required: 25 mL random urine. 4. Specimen Processing Instructions: Freeze immediately and wrap in aluminum foil to protect from light. Ship on dry ice. 5. Cause for Rejection: Specimen received unfrozen or unprotected from light. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722.
POST VASECTOMY	1. Patient Preparation: Collected in Pathology. 2. Collection Container: Sterile urine cup. 3. Specimen and Volume Required: 1 mL semen. 4. Specimen Processing Instructions: Sample must be delivered to laboratory within 1 hour of collection. Test performed during normal duty hours only. 5. Cause for Rejection: Quantity not sufficient. 6. Expected TAT: 8 hours. 7. Test Performed in Hematology Section, 916-4454.
POTASSIUM	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 2 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.

TEST NAME	SUBMITTING REQUIREMENTS
POTASSIUM,URINE (RANDOM)	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 1 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
PREALBUMIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Specimen received unfrozen from outside source. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
PREGNANCY TEST (HCG), QUANT	1. Patient Preparation: None. 2. Collection Container: Red top tube, Silicone Stopper Tube (SST), or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
PREGNANCY TEST, QUAL	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST) or urine collection container. 3. Specimen and Volume Required: 1 mL serum or urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in: Urinalysis, 916-2167 and Troop Medical Clinic, 295-4503.

TEST NAME	SUBMITTING REQUIREMENTS
PRENATAL SCREEN	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
PRIMIDONE PANEL (BAMC)	1. Patient Preparation: For periodic testing and in situations of suspected inadequate dosage, sampling should be performed just prior to the next dose. In suspected toxicity, sampling is performed at any time. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190. 8. Tests in Panel: PRIMIDONE; PHENOBARBITAL
PROGESTERONE	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice. 5. Cause for Rejection: Gross hemolysis or lipemia. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
PROLACTIN	1. Patient Preparation: None. 2. Collection Container: Red top tube or

TEST NAME	SUBMITTING REQUIREMENTS
	Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Frozen. Ship on dry ice. 5. Cause for Rejection: Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
PRONESTYL PANEL	1. Patient Preparation: During intravenous maintenance, specimens for procainamide levels should be collected no sooner than one to two hours after initiation of therapy. Specimens for N-acetyl-procainamide and procainamide should be collected no sooner than 12 to 24 hours after initiation of therapy. If peak level is desired, draw two hours post oral dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190. 8. Tests in Panel: N-ACETYL-PROCAINAMIDE; PROCAINAMIDE
PROSTATE SPECIFIC ANTIGEN	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Frozen. Ship on dry ice. 5. Cause for Rejection: Gross hemolysis. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
PROTEIN TOTAL	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove serum from clot within 4 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
PROTEIN, (SPEP) (TOTAL)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Refrigerate. Ship on wet ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
PROTEIN, URINE	1. Patient Preparation: Patient should be given instructions to keep urine collection refrigerated during the collection process. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 10 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: No preservative is required. Mix 24-hour urine collection well. Aliquot 10 mL of the 24-hour urine collection into a separate labeled container. Record 24-hour collection total volume and date and time of collection on request. Refrigerate. Ship on wet ice. 5. Cause for Rejection: Acidified specimens cannot be analyzed. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
PROTEIN,CSF	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: Sterile CSF collection container. 3. Specimen and Volume Required: 1 mL CSF. 4. Specimen Processing Instructions: Transport to the Laboratory ASAP. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
PT/INR	1. Patient Preparation: Coumadin patients only. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 4.5 mL plasma. 4. Specimen Processing Instructions: Tube must be filled to fill line. The tube(s) must be mixed gently after collection. Avoid specimen hemolysis and clotting. Transport to the laboratory room temperature 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462.
PTT	1. Patient Preparation: Coumadin patients only. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 4.5 mL plasma. 4. Specimen Processing Instructions: Tube must be filled to fill line. The tube(s) must be mixed gently after collection. Avoid specimen hemolysis and clotting. Transport to the laboratory room temperature. 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462.
QUINIDINE	1. Patient Preparation: For periodic

TEST NAME	SUBMITTING REQUIREMENTS
	testing and in situations of suspected inadequate dosage, sampling should be performed just prior to the next dose. In suspected toxicity, sampling is performed at any time. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
R/O (RULE OUT) BETA STREP	1. Patient Preparation: None. 2. Collection Container: Dacron or rayon bacterial swab. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: Identify genital source on request form. 5. Cause for Rejection: Improper collection. 6. Expected TAT: 72 hours. 7. Test Performed in Microbiology Section, 916-3353.
R/O (RULE OUT) MRSA	1. Patient Preparation: Remove surface exudate by wiping with sterile saline or 70% alcohol. For superficial and/or open wounds aspirate or swab deep into lesion at the lesion’s advancing edge. For deep or closed wounds, aspirate material with a needle and syringe and aseptically transfer all material into anaerobic transport device or vial. 2. Collection Container: Sterile container with aspirate, swab. 3. Specimen and Volume Required: Representative portion. 4. Specimen Processing Instructions: Identify source on request form. 5. Cause for Rejection: See Microbiology Section, general rejection criteria. 6. Expected TAT: 72 hours aerobic culture

TEST NAME	SUBMITTING REQUIREMENTS
	(7 days for anaerobic culture). 7. Test Performed in Microbiology Section, 916-3353.
R/O (RULE OUT) VRE	1. Patient Preparation: Prior approval by Chief, Microbiology is required. 2. Collection Container: NA. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: NA. 6. Expected TAT: NA. 7. Test Performed in Microbiology Section, 916-3353.
RAPID PLASMA REAGIN (BAMC)	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: RPR SCREEN; RPR QUANTITATIVE
RAPID STREP PYOGENES ANTIGEN	1. Patient Preparation: None. 2. Collection Container: Swab transport device. DO NOT CRUSH AMPULE. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: Transport to the laboratory immediately. This request is to identify Group A Strep only as a POC test. Pediatrics, Acute Care, Emergency Department, and Troop Medical Clinics are authorized to order this test. Other clinics/wards should contact Chief, Microbiology for approval. 5. Cause for Rejection: Improper swab. 6. Expected TAT: Less than 1 hour during normal duty hours. 7. Test Performed in Microbiology Section, 916-3353.
REDUCING	1. Patient Preparation: Aseptic technique.

TEST NAME	SUBMITTING REQUIREMENTS
SUBSTANCES, STOOL	2. Collection Container: Sterile container. 3. Specimen and Volume Required: Unpreserved stool. 4. Specimen Processing Instructions: Refrigerate if transport is delayed. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 2 days. 7. Test Performed in Microbiology Section, 916-3353.
RENAL PANEL	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503. 8. Tests in Panel: ALBUMIN, CALCIUM, CARBON DIOXIDE, CHLORIDE, CREATININE, GLUCOSE, PHOSPHORUS, POTASSIUM, SODIUM, UREA NITROGEN
RENIN	1. Patient Preparation: None. 2. Collection Container: Pre-chilled EDTA lavender top tube. 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: Collect on ice, separate cells from plasma, and freeze plasma ASAP. Ship on dry ice. 5. Cause for Rejection: Hemolyzed sample. Non-frozen specimen from outside source. 6. Expected TAT: 10 days. 7. Test Performed in Immunochemistry/RIA, 916-5511.
RESERVE CHEMISTRY PANEL	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST).

TEST NAME	SUBMITTING REQUIREMENTS
	3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Cells must be separated from serum within 1 hour after collection. Refrigerate serum. Ship on wet ice. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: GLUCOSE; LIPID PROFILE
RESPIRATORY CULTURE	1. Patient Preparation: Deep respiratory sample is optimal. 2. Collection Container: Sterile screw top container. 3. Specimen and Volume Required: 1 mL sputum, aspirate, or washing (for bronchial brush submit brush in 1 mL of bronchial washing). 4. Specimen Processing Instructions: Transport ASAP, refrigerate in delay of more than 2 hours. 5. Cause for Rejection: Inadequate sample. Oral contamination noted. 6. Expected TAT: 48 hours. 7. Test Performed in Microbiology Section, 916-3353.
RESPIRATORY VIRAL PANEL (BAMC)	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Any respiratory specimen (nasopharyngeal washing, sputum, throat, etc.). 4. Specimen Processing Instructions: Freeze sample if transport is delayed. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Virology, 916-2421. 8. Tests in Panel: INFLUENZA A; INFLUENZA B; ADENOVIRUS; RSV; PARAINFLUENZA
RETIC PANEL	1. Patient Preparation: None.

TEST NAME	SUBMITTING REQUIREMENTS
AUTOMATED	2. Collection Container: Lavender top tube (EDTA) or pediatric bullet tube (EDTA). Gently mix sample immediately following collection. 3. Specimen and Volume Required: Minimum 3-5 mL whole blood. 4. Specimen Processing Instructions: Allow vacutainer to draw to the level of its vacuum, mix gently. Transport to the laboratory at room temperature. Must be received within 8 hours. 5. Cause for Rejection: Hemolysis, clots, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-4454.
RHEUMATOID PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected, labeled, or hemolyzed specimen. 6. Expected TAT: 3 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: RHEUMATOID FACTOR; RHEUMATOID TITER
RHO(D) IMMUNE GLOBULIN (HUMAN)	1. Patient Preparation: Aseptic technique. Patient requires a current (less than one week old) ABO, Rh, and antibody screen to initiate the 28-week prophylactic immune globulin. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled specimen; no prescription. 6. Expected TAT: 10 minutes.

TEST NAME	SUBMITTING REQUIREMENTS
	7. Test Performed in Blood Bank, 916-3315/ 5185.
RIBOSOMAL Ab	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
ROSETTE TEST FOR FETOMATERNAL HEMORRHAGE	1. Patient Preparation: Aseptic technique. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 30 minutes. 7. Test Performed in Blood Bank, 916-3315/ 5185.
ROTAVIRUS ANTIGEN	1. Patient Preparation: Fresh stool sample required. Collect specimens 1 to 3 days after onset of symptoms. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: More than 1 gram fresh stool. 4. Specimen Processing Instructions: Freeze sample if transportation is delayed. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 2 days. 7. Test Performed in Virology, 916-2421.
RSV ANTIGEN	1. Patient Preparation: None. 2. Collection Container: Sterile container or swab. 3. Specimen and Volume Required: 2-3 mL nasopharyngeal washes or aspirates, or

TEST NAME	SUBMITTING REQUIREMENTS
	nasopharyngeal swabs. 4. Specimen Processing Instructions: Transport to laboratory immediately. 5. Cause for Rejection: Improper specimen submission. 6. Expected TAT: 2 hours during normal operating hours. If sample is submitted at other times, sample will be tested next duty day. 7. Test Performed in Microbiology Section, 916-3353.
RUBELLA IgG	1. Patient Preparation: Aseptic technique. Collect acute sample upon onset and convalescent sample 2-4 weeks from onset. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402.
RUBEOLA IgG	1. Patient Preparation: Aseptic technique. Collect acute sample upon onset and convalescent sample 2-4 weeks from onset. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402.
SALICYLATE	1. Patient Preparation: For therapeutic monitoring, collect just prior to next dose. For overdose, specimens should be collected as soon as possible and at least 6 hours after ingestion. 2. Collection Container: Red top tube or

TEST NAME	SUBMITTING REQUIREMENTS
	Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
SCLERODERMA ANTIBODIES (SCL-70)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Hemolysis or lipemia. 6. Expected TAT: 3-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
SEMEN ANALYSIS	1. Patient Preparation: Abstain from sexual activity for 72 hours. Patient should be instructed to schedule an appointment and report to the laboratory collection processing area, fourth floor to receive specimen collection instructions. 2. Collection Container: Sterile urine cup. 3. Specimen and Volume Required: Semen, representative portion. 4. Specimen Processing Instructions: The laboratory must receive sample within 1 hour after collection. Performed only between 0800 and 1400 on Tuesday and Thursday. 5. Cause for Rejection: Quantity not sufficient. 6. Expected TAT: 8 hours. 7. Test Performed in Hematology Section, 916-4454. 8. Tests in Panel: VOLUME; COLOR; VISCOSITY; PH; COUNT; MOTILITY; VIABILITY; FORWARD PROGRESSION; FORWARD PROGRESSION AVG; NORMAL FORMS; TAPERED HEAD; HEAD

TEST NAME	SUBMITTING REQUIREMENTS
	ABNORMALITY; MIDPIECE ABNORMALITY; TAIL ABNORMALITY; CYTOPLASMIC DROPLET; ABNORMAL FORMS; IMMATURE FORMS; WBCS
SEMEN FRUTOSE	1. Patient Preparation: Abstain from sexual activity for 72 hours. Laboratory must receive sample within 1 hour after collection. Assay not performed when sperm are absent from sample. 2. Collection Container: Sterile urine cup. 3. Specimen and Volume Required: Semen, representative portion. 4. Specimen Processing Instructions: The laboratory must receive sample within 1 hour after collection. Performed only between 0800 and 1400 on Tuesday and Thursday. 5. Cause for Rejection: Quantity not sufficient. 6. Expected TAT: 8 hours. 7. Test Performed in Hematology Section, 916-4454.
SHELL VIAL, CMV (BAMC)	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Any body fluid or tissue (except serum or plasma). 4. Specimen Processing Instructions: Add sterile saline to biopsy specimens. For transport delays over 48 hours, the sample should be frozen (except buffy coat). 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Virology, 916-2421.
SHELL VIAL, ENTEROVIRUS	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Any body fluid or tissue (except serum or plasma).

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: Add sterile saline to biopsy specimens. For transport delays over 48 hours, the sample should be frozen. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Virology, 916-2421.
SHELL VIAL, HERPES	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Any body fluid or tissue (except serum or plasma). 4. Specimen Processing Instructions: Add sterile saline to biopsy specimens. For transport delays over 48 hours, the sample should be frozen. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Virology, 916-2421.
SHELL VIAL, VARICELLA	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Any body fluid or tissue (except serum or plasma). 4. Specimen Processing Instructions: Add sterile saline to biopsy specimens. For transport delays over 48 hours, the sample should be frozen. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Virology, 916-2421.
SICKLE CELL	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 5 mL whole blood.

TEST NAME	SUBMITTING REQUIREMENTS
	4. Specimen Processing Instructions: Mix well to avoid clots. Ship on wet ice. 5. Cause for Rejection: Gross hemolysis, clots. 6. Expected TAT: 10 days. 7. Test Performed in Immunochemistry, 916-5511.
SODIUM	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
SPECIFIC GRAVITY	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in: Urinalysis, 916-2167 and Troop Medical Clinic, 295-4503.
SPUTUM EXAM FOR PARASITES	1. Patient Preparation: Lower respiratory specimen collection required. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: No less than 1 mL fresh sputum. 4. Specimen Processing Instructions: Do NOT use preservatives. Refrigerate if transport is delayed. Ship using wet ice. 5. Cause for Rejection: Improperly collected or labeled. Saliva submissions. 6. Expected TAT: 3 days. 7. Test Performed in Microbiology Section, 916-3353.
STERILITY TEST	1. Patient Preparation: NA. 2. Collection Container: NA

TEST NAME	SUBMITTING REQUIREMENTS
	3. Specimen and Volume Required: Spore strip or ampule. 4. Specimen Processing Instructions: Label with autoclave location and transport to laboratory ASAP. 5. Cause for Rejection: Ampule not crushed. 6. Expected TAT: 3-7 days. 7. Test Performed in Microbiology Section, 916-3353.
STONE RISK ANALYSIS (URORISK)	1. Patient Preparation: Mission Pharmacal request form must be completed and submitted with sample. 2. Collection Container: 24 hour special container. 3. Specimen and Volume Required: 24-hour urine. 4. Specimen Processing Instructions: Call (210) 916-1220. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 7-10 days. 7. Test Performed by Mission Pharmacal, 1-800-771-1048.
STOOL CULTURE	1. Patient Preparation: Pass specimen directly into clean, dry container. Do not contaminate with urine, barium, or toilet paper. For rectal swabs, carefully insert transport swab 2.5 cm beyond anal sphincter, gently rotate swab to sample crypts. Test should not be requested on patients hospitalized for more than 3 days. 2. Collection Container: Leak-proof, wide month container or rectal swab. 3. Specimen and Volume Required: Greater than 2 gram fresh sample or rectal swab. 4. Specimen Processing Instructions: Transport to the laboratory within 1 hour. Cultures are screened for Salmonella, Shigella, Campylobacter, and E. coli O157:H7. Requests for other bacterial agents, such as Vibrio or Yersinia species, must be noted in comment section of test

TEST NAME	SUBMITTING REQUIREMENTS
	request. Consider ordering a C. difficile toxin request if patient has been hospitalized for over 3-day duration. 5. Cause for Rejection: Formed or preserved specimen or items listed under Microbiology general rejection criteria. 6. Expected TAT: 72 hours. 7. Test Performed in Microbiology Section, 916-3353.
STOOL GROSS EXAMINATION	1. Patient Preparation: Aseptic technique. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Unpreserved stool. 4. Specimen Processing Instructions: Refrigerate if transport is delayed. Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 2 days. 7. Test Performed in Microbiology Section, 916-3353. 8. Tests in Panel: COLOR, STOOL; CONSISTENCY; MUCUS; GROSS BLOOD
STOOL pH	1. Patient Preparation: Aseptic technique. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Fresh stool. 4. Specimen Processing Instructions: Refrigerate if transport is delayed. 5. Cause for Rejection: Improperly labeled. 6. Expected TAT: 2 days. 7. Test Performed in Microbiology Section, 916-3353.
SULFOSALICYLIC ACID	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 1-4 hours. 7. Test Performed in: Urinalysis, 916-2167 and Troop Medical Clinic, 295-4503.
TAPE WORM	1. Patient Preparation: None. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Entire segment of worm placed in saline. 4. Specimen Processing Instructions: Refrigerate if transportation is delayed. Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 3 days. 7. Test Performed in Microbiology Section, 916-3353.
TB GENE AMPLIFICATION	1. Patient Preparation: This test is run on respiratory specimens with a positive AFB smear. Other requests must have Chief, Microbiology approval. For other details, please see “Acid Fast Culture and Stain”. 2. Collection Container: See number 3 below. 3. Specimen and Volume Required: a. Bronchial wash, representative portion, sterile cup. b. 5-10 mL sputum, sterile cup. 4. Specimen Processing Instructions: NA. 5. Cause for Rejection: See Microbiology Section, general rejection criteria. Transport delay more than 24 hours for local specimens, and more than 72 hours for off-post specimens. 6. Expected TAT: 24-48 hours. 7. Test Performed in Microbiology Section, 916-3353.
TESTOSTERONE	1. Patient Preparation: None. 2. Collection Container: Red top tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Freeze serum. Ship on dry ice.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Hemolyzed sample. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511.
TETANUS ANTIBODIES	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 0.5 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 1-4 days. 7. Test Performed by Smithkline, 1-800-377-8448.
THEOPHYLLINE	1. Patient Preparation: Collect just prior to next oral dose, at steady state concentration during IV administration or 30 minutes after completion of IV dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
THROAT CULTURE	1. Patient Preparation: None. 2. Collection Container: Swab transport device. 3. Specimen and Volume Required: NA. 4. Specimen Processing Instructions: Transport to laboratory immediately, store at room temperature if delay occurs. This request is to rule out beta-hemolytic group A streptococci, (Streptococcus pyogenes). Contact Chief, Microbiology for special requests. 5. Cause for Rejection: Items listed under Microbiology general rejection criteria.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 24-48 hours. 7. Test Performed in Microbiology Section, 916-3353.
THROMBIN TIME	1. Patient Preparation: None. 2. Collection Container: Blue top tube (sodium citrate). 3. Specimen and Volume Required: 4.5 mL plasma. 4. Specimen Processing Instructions: Tube must be filled to fill line. The tube(s) must be mixed gently after collection. Avoid specimen hemolysis and clotting. Transport to the laboratory room temperature. 5. Cause for Rejection: Clotted, hemolysis, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-1462.
THYROGLOBULIN QUANT	1. Patient Preparation: None. 2. Collection Container: Red top tube. 3. Specimen and Volume Required: 2.0 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 3 days. 7. Test Performed by Smithkline, 1-800-377-8448.
THYROID ANTIBODY PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected, labeled or hemolyzed specimens unsuitable for testing. 6. Expected TAT: 5 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: THYROGLOBULIN ANTIBODY;

TEST NAME	SUBMITTING REQUIREMENTS
	THYROID MICROSOMAL ANTIBODIES
THYROID PEROXIDASE ANTIBODIES	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 24 hours. 7. Test Performed by Smithkline, 1-800-377-8448.
THYROID STIMULATING HORMONE (TSH)	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
THYROID STIMULATING IMMUNOGLOBULIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 5-7 days. 7. Test Performed by Smithkline, 1-800-377-8448.
TOBRAMYCIN PEAK	1. Patient Preparation: For intravenous therapy, peak concentration occurs 15 to 30 minutes following completion of infusion. For intramuscular therapy, peak concentration occurs 45 to 75 minutes following administration. 2. Collection Container: Red top tube or Lithium Heparin tube (green top).

TEST NAME	SUBMITTING REQUIREMENTS
	3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
TOBRAMYCIN RANDOM	1. Patient Preparation: None. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
TOBRAMYCIN TROUGH	1. Patient Preparation: For intravenous therapy and intramuscular, trough concentration occurs not more than 30 minutes before next dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
TOTAL COMPLEMENT (CH 50)	1. Patient Preparation: Complete IERA Form 03 and submit with sample. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 5-7 days. 7. Test Performed by Epidemiology Lab, Brooks AFB (210) 536-8378.

TEST NAME	SUBMITTING REQUIREMENTS
TOTAL EOSINOPHIL COUNT	1. Patient Preparation: None. 2. Collection Container: EDTA lavender top tube or pediatric bullet tube. Gently mix immediately following collection. 3. Specimen and Volume Required: Minimum 3-5 mL whole blood. 4. Specimen Processing Instructions: Allow vacutainer to draw to the level of its vacuum, mix gently. Transport to laboratory at room temperature. Must be received within 8 hours. 5. Cause for Rejection: Hemolysis, clots, or quantity not sufficient. 6. Expected TAT: 4 hours. 7. Test Performed in Hematology Section, 916-4454.
TOXICOLOGY SCREEN (SERUM)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 7 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 1-2 days 7. Test Performed WHMC Toxicology, (210) 292-5503.
TOXICOLOGY SCREEN (URINE)	1. Patient Preparation: None. 2. Collection Container: Plastic vial. 3. Specimen and Volume Required: 20 mL urine. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 1-2 days. 7. Test Performed by WHMC Toxicology, (210) 292-5503.
TOXOPLASMA PANEL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL

TEST NAME	SUBMITTING REQUIREMENTS
	serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 5 days. 7. Test Performed in Serology, 916-0402. 8. Tests in Panel: TOXOPLASMA IgG; TOXOPLASMA IgM
TRANSFERRIN	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL serum. 4. Specimen Processing Instructions: Separate cells from serum ASAP. Freeze serum. Ship on dry ice. 5. Cause for Rejection: None. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
TRANSFUSION REACTION WORKUP	1. Patient Preparation: Aseptic technique. 2. Collection Container: a. EDTA lavender top tube. b. Urine cup. 3. Specimen and Volume Required: a. 4-7 mL whole blood. b. 3-5 mL random urine. 4. Specimen Processing Instructions: Transport the following to the Blood Bank: a. Completed BAMC OP 437. b. Original copy of completed SF 518. c. One EDTA lavender top tube blood specimen. d. A container with first available urine sample. e. The discontinued blood bag, IV set, and any attached solutions. 5. Cause for Rejection: NA. 6. Expected TAT: 30 minutes. 7. Test Performed in Blood Bank, 916-3315/ 5185.
TREPONEMA PALLIDUM	1. Patient Preparation: Aseptic technique.

TEST NAME	SUBMITTING REQUIREMENTS
ANTIBODY TP-PA	2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 5 days. 7. Test Performed in Serology, 916-0402.
TRICYCLIC SCREEN	1. Patient Preparation: Sampling should be performed during the elimination phase of the drug, which is a minimum of eight hours after the last dose. 2. Collection Container: Red top tube. 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
TRIGLYCERIDE	1. Patient Preparation: Patient should fast 12-14 hours prior to collection. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 2 mL serum. 4. Specimen Processing Instructions: Refrigerate serum. Ship on wet ice. 5. Cause for Rejection: Non-fasting specimen. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
TRIPLE MARKER PROFILE	1. Patient Preparation: Complete IERA Form 03 and submit with sample. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: Improperly collected and improperly labeled. 6. Expected TAT: 5-7 days. 7. Test Performed by Epidemiology Lab, Brooks AFB, (210) 536-8593.
TROPONIN I	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
TYPE AND CROSSMATCH	1. Patient Preparation: Aseptic technique. Appropriately completed SF 518. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled; incomplete requests (SF 518s). 6. Expected TAT: 4 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
TYPE AND SCREEN	1. Patient Preparation: Aseptic technique. Appropriately completed SF 518. 2. Collection Container: EDTA lavender top tube. 3. Specimen and Volume Required: 4-7 mL whole blood. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Improperly collected or labeled; incomplete requests (SF 518s). 6. Expected TAT: 2 hours. 7. Test Performed in Blood Bank, 916-3315/ 5185.
UREA NITROGEN	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin

TEST NAME	SUBMITTING REQUIREMENTS
	tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
URIC ACID	1. Patient Preparation: None. 2. Collection Container: Lithium Heparin tube (green top). 3. Specimen and Volume Required: 1 mL plasma. 4. Specimen Processing Instructions: Centrifuge and remove from clot within 4 hours of collection. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043 and Troop Medical Clinic, 295-4503.
URIC ACID,URINE (RANDOM)	1. Patient Preparation: None. 2. Collection Container: Urine cup. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: NO preservative. Refrigerate if transport delayed. Ship on dry ice. 5. Cause for Rejection: Acidified specimens cannot be analyzed. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.
URINE ANALYSIS	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Urine samples received more than 4 hours from collection time.

TEST NAME	SUBMITTING REQUIREMENTS
	6. Expected TAT: 1-4 hours. 7. Test Performed in: Urinalysis, 916-2167 and Troop Medical Clinic, 295-4503. 8. Tests in Panel: URN:GLUCOSE; URN:COLOR; URN:APPEARANCE; URN:BILIRUBIN; URN:KETONES; URN:SPECIFIC GRAVITY; URN:BLOOD; URN:PH; URN:PROTEIN; URN:UROBILINOGEN; URN:NITRITE; URN:LEUKOCYTE ESTERASE; MIC:RBC; MIC:WBC; MIC:BACTERIA; MIC:YEAST; MIC:EPITHELIAL CELLS; MIC:MUCUS; MIC:TRICHOMONAS; MIC:CASTS; MIC:CRYSTALS
URINE CULTURE	1. Patient Preparation: Obtain a clean catch, midstream urine (CCMS) specimen, after cleaning the external genitalia. First morning specimens are preferred. Catheterized and bladder samples may also be submitted. Identify the specific source when ordering. Do NOT submit Foley catheter tips. 2. Collection Container: Sterile urine cup, screw top container, or urine transport kit. 3. Specimen and Volume Required: Greater than 1 mL urine. 4. Specimen Processing Instructions: Transport specimen to laboratory within 2 hours of collection for unpreserved specimen. Store refrigerated if transport is delayed. 5. Cause for Rejection: Specimens not properly preserved. Preserved specimens more than 24 hours old. Pooled 24-hour sample. Items listed under Microbiology general rejection criteria. 6. Expected TAT: 24-48 hours. 7. Test Performed in Microbiology Section, 916-3353.
URINE LYTES/CREAT	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 1 mL urine. 4. Specimen Processing Instructions: None.

TEST NAME	SUBMITTING REQUIREMENTS
	5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043. 8. Tests in Panel: POTASSIUM; SODIUM; CHLORIDE; CREATININE
URINE MACROSCOPIC ONLY	1. Patient Preparation: None. 2. Collection Container: Urine collection container. 3. Specimen and Volume Required: 10 mL urine. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: Urine samples received more than 4 hours from collection time. 6. Expected TAT: 1 hour. 7. Test Performed in Urinalysis, 916-2167 and Troop Medical Clinic, 295-4503. 8. Tests in Panel: URN:COLOR; URN:GLUCOSE;URN:APPEARANCE; URN:BILIRUBIN; URN:KETONES; URN:SPECIFIC GRAVITY; URN:BLOOD; URN:PH; URN:PROTEIN; URN:UROBILINOGEN; URN:NITRITE; URN:LEUKOCYTE ESTERASE
URINE PROTEIN ELECTROPHORESIS (UPEP) (BAMC)	1. Patient Preparation: None. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 25 mL urine well mixed. 4. Specimen Processing Instructions: NO preservatives added. Aliquot 25 mL urine from the total volume of the 24-hour collection. Record total volume on laboratory request. State if other than 24-hour urine sent. Notify laboratory if request is accompanied by serum protein electrophoresis request. Ship on wet ice. 5. Cause for Rejection: NA. 6. Expected TAT: 14 days (TAT may vary depending on results obtained). 7. Test Performed in Immunochemistry, 916-5511. 8. Tests in Panel: URINE TOTAL VOLUME;

TEST NAME	SUBMITTING REQUIREMENTS
	PROTEIN, URINE; UPE ALBUMIN FRACTION (BAMC); PROTEIN/24 HR (BAMC); UPE ALPHA-1 FRACTION; UPE ALPHA-2 FRACTION; UPE BETA FRACTION; UPE GAMMA FRACTION; PATH REVIEW ELECTROPHORESIS; UPE GLOBULIN FRACTION; IMMUNOFIXATION TEST
URINE TOTAL VOLUME	1. Patient Preparation: Instruct patient to empty bladder first thing in the morning. All future urine voids should be collected in a clean 24-hour urine collection container. Final collection is made when patient empties their bladder the next morning at the same time. Keep 24-hour urine collection refrigerated during collection period. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: Not applicable. 4. Specimen Processing Instructions: No preservative required. Record total volume and enter result in the computer. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2043.
UROBILINOGEN	1. Patient Preparation: None. 2. Collection Container: Urine cup. 3. Specimen and Volume Required: 25 mL random urine. 4. Specimen Processing Instructions: Do NOT add preservative. Wrap specimen in aluminum foil to protect from light and freeze. Ship in dry ice. 5. Cause for Rejection: Unfrozen or specimens unprotected from light cannot be analyzed. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722.
VALPROIC ACID	1. Patient Preparation: Blood samples should be drawn immediately prior to the next dose. A prerequisite for monitoring serum levels is that dosage must be stable

TEST NAME	SUBMITTING REQUIREMENTS
	for at least two days; doses should not be changed or missed. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
VANCOMYCIN PEAK	1. Patient Preparation: Peak serum levels should be obtained one to two hours after intravenous administration. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
VANCOMYCIN RANDOM	1. Patient Preparation: None. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours. 7. Test Performed in Clinical Chemistry, 916-2190.
VANCOMYCIN TROUGH	1. Patient Preparation: Trough levels are reflected by samples obtained immediately prior to the next dose. 2. Collection Container: Red top tube or Lithium Heparin tube (green top). 3. Specimen and Volume Required: 2 mL serum/plasma. 4. Specimen Processing Instructions: None. 5. Cause for Rejection: None. 6. Expected TAT: 1-4 hours.

TEST NAME	SUBMITTING REQUIREMENTS
	7. Test Performed in Clinical Chemistry, 916-2190.
VANILLYLMANDELIC ACID (VMA)	1. Patient Preparation: Patient should be given instructions to keep urine collection refrigerated during the collection process. 2. Collection Container: 24-hour urine container. 3. Specimen and Volume Required: 25 mL aliquot of 24-hour urine collection. 4. Specimen Processing Instructions: Laboratory will add 15 mL of concentrated Hydrochloric Acid (12N) to the 24-hour urine collection. After mixing well, aliquot 25 mL of the 24-hour urine collected into a labeled separate container. Record 24-hour collection total volume and date and time of collection on request. Refrigerate. Ship on wet ice. 5. Cause for Rejection: pH must be between 1-3. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722. 8. Tests in Panel: URINE TOTAL VOLUME; URN VMA CONCENTRATION; VANILLYLMANDELIC ACID, URINE
VARICELLA ANTIBODY	1. Patient Preparation: Aseptic technique. Collect acute sample upon onset and convalescent sample 2-4 weeks from onset. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on wet ice. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 4 days. 7. Test Performed in Serology, 916-0402.
VARICELLA ANTIGEN (DFA)	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. Coordination with Virology Section requested.

TEST NAME	SUBMITTING REQUIREMENTS
	2. Collection Container: Sterile container. 3. Specimen and Volume Required: 2 slides and 1 viral swab for culture. 4. Specimen Processing Instructions: Collect cellular sample using sterile swab. Smear cellular material onto labeled glass slide. Place slide in sterile container and transport. Each request should be accompanied with a separate order and sample for Herpes culture. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 1 day for slides. 7. Test Performed in Virology, 916-2421.
VDRL	1. Patient Preparation: Aseptic technique. 2. Collection Container: Sterile CSF tube or Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 1 mL CSF or 3 mL serum. 4. Specimen Processing Instructions: Serum testing completed upon HCP request. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 7 days. 7. Test Performed in Serology, 916-0402.
VIRUS CULTURE	1. Patient Preparation: Aseptic technique. Collect specimens 1 to 3 days after onset of symptoms. 2. Collection Container: Sterile container. 3. Specimen and Volume Required: Any body fluid or tissue (except serum or plasma). 4. Specimen Processing Instructions: Add sterile saline to biopsy specimens. Freeze sample if transport is delayed. 5. Cause for Rejection: Improperly collected or labeled. 6. Expected TAT: 14 days. 7. Test Performed in Virology, 916-2421.
VITAMIN B-12 AND FOLATE LEVEL	1. Patient Preparation: Fasting (12 hours). 2. Collection Container: Red top tube or

TEST NAME	SUBMITTING REQUIREMENTS
	Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Frozen within 8 hours, protect serum from light. 5. Cause for Rejection: Hemolysis sample. Non-frozen specimen from outside source. 6. Expected TAT: 7 days. 7. Test Performed in Immunochemistry, 916-5511. 8. Tests in Panel: VITAMIN B-12 LEVEL; FOLATE LEVEL
VITAMIN D (1.25 DIHYDROXY)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Hemolysis. 6. Expected TAT: 3 days. 7. Test Performed by Smithkline, 1-800-377-8448.
VITAMIN D (25 HYDROXY)	1. Patient Preparation: None. 2. Collection Container: Silicone Stopper Tube (SST). 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: Ship on dry ice. 5. Cause for Rejection: Hemolysis or lipemia. 6. Expected TAT: 3 days. 7. Test Performed by Smithkline, 1-800-377-8448.
WOUND CULTURE, DEEP	1. Patient Preparation: Remove surface exudate by wiping with sterile saline or 70% alcohol. For superficial and/or open wounds aspirate or swab deep into lesion at the lesion’s advancing edge. For deep or closed wounds, aspirate material with a needle and syringe and aseptically transfer all

TEST NAME	SUBMITTING REQUIREMENTS
	material into anaerobic transport device or vial. 2. Collection Container: Sterile container with aspirate, swab, anaerobic transport device for anaerobes when required. 3. Specimen and Volume Required: Representative portion. 4. Specimen Processing Instructions: Indicate site. Please note if wound is from a bite. For optimal Gram stain results, request a separate swab be submitted. 5. Cause for Rejection: See Microbiology Section, general rejection criteria. 6. Expected TAT: 72 hours aerobic culture (7 days for anaerobic culture). 7. Test Performed in Microbiology Section, 916-3353.
WOUND CULTURE, SUPERFICIAL	1. Patient Preparation: Remove surface exudate by wiping with sterile saline or 70% alcohol. For superficial and/or open wounds aspirate or swab deep into lesion at the lesion’s advancing edge. For deep or closed wounds, aspirate material with a needle and syringe and aseptically transfer all material into anaerobic transport device or vial. 2. Collection Container: Sterile container with aspirate, swab, anaerobic transport device for anaerobes when required. 3. Specimen and Volume Required: Representative portion. 4. Specimen Processing Instructions: Indicate site. Please note if wound is from a bite. For optimal Gram stain results, request a separate swab be submitted. 5. Cause for Rejection: See Microbiology Section, general rejection criteria. 6. Expected TAT: 72 hours aerobic culture (7 days for anaerobic culture). 7. Test Performed in Microbiology Section, 916-3353.
ZINC	1. Patient Preparation: None. 2. Collection Container: Royal blue acid-

TEST NAME	SUBMITTING REQUIREMENTS
	washed tube. 3. Specimen and Volume Required: 3 mL serum. 4. Specimen Processing Instructions: After drawing in royal blue acid-washed tube, separate cells from serum promptly and transfer serum into another labeled royal blue acid-washed tube. 5. Cause for Rejection: Serum must have been collected and stored in royal blue acid-wasted tube. Store refrigerated. Ship on wet ice. 6. Expected TAT: 7 days. 7. Test Performed in Reference Chemistry, 295-4722.
ZINC PROTOPORPHYRIN	1. Patient Preparation: None. 2. Collection Container: Lavender top tube EDTA, 7 mL tube or capillary. 3. Specimen and Volume Required: Whole blood, entire collection. 4. Specimen Processing Instructions: Store refrigerated. Ship on wet ice. 5. Cause for Rejection: Serum, frozen, or clotted whole blood cannot be used for analysis. 6. Expected TAT: 48 hours. 7. Test Performed in Reference Chemistry, 295-4722.

APPENDIX E

Maximum Surgical Blood Ordering Schedule (MSBOS)

PROCEDURE	UNITS CROSSMATCHED
GENERAL SURGERY	
Abdominal-perineal resection	4
Amputation-above/below knee	2
Amputation-hip	3
Antrectomy and vagotomy	T&S
Appendectomy	T&S
Breast biopsy-excisional	T&S
Cholecystectomy-laparoscopic	T&S
Cholecystectomy-open	T&S
Colectomy-total or hemi	2
Colostomy	2
Colostomy closure	T&S
Esophagectomy	4
Exploratory laparotomy	2
Gastrectomy	2
Gastrostomy	T&S
Hemorrhoidectomy	T&S
Hepatectomy	8
Hiatal hernia repair	T&S
Inguinal herniorrhaphy	T&S
Lipoma excision	
Lymph node biopsy	
Mastectomy- radical, modified, simple	T&S
Pancreatectomy	4
Parathyroidectomy	T&S
Pilonidal cyst	T&S
Portocaval shunt procedure	6
Reduction mammoplasty	T&S
Renal transplant	2
Small bowel resection	4
SOAVE (ileoanal pull through)	2
Splenectomy-elective	2
Splenectomy-trauma	As ordered
Splenorenal shunt	6
Sympathectomy	T&S
Thyroidectomy	T&S
Whipple procedure	

Vein stripping	T&S
CARDIOTHORACIC SURGERY	
Bronchopleural fistulae	2
Cardiac-arterial bypass graft	4
Congenital open heart surgery	8
Embolectomy	2
Lung biopsy	T&S
Mediastinoscopy	T&S
Patent ductus repair	2
Pericardectomy	2
Pleurodesis	T&S
Pleural biopsy	
Thoracic aneurysm repair	6
Thoracotomy for pneumonectomy	2
Thoracotomy for lobectomy	2
Thoracotomy for wedge resection	T&S
Thymectomy	
Valve replacement	8
VASCULAR SURGERY	
Abdominal aortic aneurysm repair	6
Aortofemoral bypass graft	4
Aortoiliac bypass graft	4
Carotid body tumor resection	4
Carotid endarterectomy	2
Femoral-popliteal bypass graft	4
Femorotibial bypass graft	3
Ileofemoral bypass graft	4
Renal artery repair	3
NEUROSURGERY	
Craniotomy for acute subdural/epidural hematoma	3
Craniotomy for aneurysm/ AVM	2
Craniotomy for tumor	2
Craniotomy for chronic subdural hematoma	T&S
Laminectomy-spinal cord tumor	2
Laminectomy-cervical/ lumbar disc/spondylosis	T&S
Transphenoidal hypophysectomy	2
Ventriculoperitoneal shunt	T&S
ORTHOPEDICS	
Amputation-leg	2
Amputation-hip	3

Arthroscopy	T&S
Hip nailing	2
Hip pin removal	T&S
Hip replacement-total	3
Knee replacement	2
Open procedures-hip or femur	4
Other open reductions	2
Osteotomy	T&S
Scoliosis fusion	3-4
Shoulder reconstruction	T&S
OTOLARYNGOLOGY	
Angiofibroma resection	4
Branchial cleft cyst	T&S
Caldwell-Luc	T&S
Carotid body tumor resection	4
Ethmoidectomy	T&S
Glossectomy/hemiglossectomy	2
Laryngectomy	2
Laryngectomy with radical neck	3
Mandibulectomy	2
Maxillectomy	4
Nasal septoplasty	
Neck dissection-radical	3
Palate tumor	T&S
Panendoscopy	
Tonsillectomy	
UPPP	
UROLOGY	
Adrenalectomy	3
Cystectomy-radical	6
Cystostomy	T&S
Cystoscopy	
Ileal conduit	2
Nephrectomy	2
Nephrectomy-radical	3
Orchiectomy	
Penectomy-radical	2
Penile prosthesis insertion	T&S
Prostatectomy-suprapubic	2
Prostatectomy-radical	4
Prostatectomy-perineal	T&S
Pyelolithotomy	2

Transurethral resection of bladder/prostate	T&S
Ureteral stent	
PLASTIC SURGERY	
Cleft lip/palate repair	T&S
Pedicle flaps	2
Split-thickness skin grafts	2
Thoracoabdominal flap	T&S
ORAL SURGERY	
Anterior maxillary osteotomy	T&S
Genioplasty	T&S
Le Forte I osteotomy	T&S
Osteotomy	T&S
Vestibuloplasty	T&S
OB/GYN	
AP repair	T&S
C-section-elective	T&S
C-section-emergent	As ordered
Cervical conization	T&S
Dilatation and currettage	T&S
Ectopic pregnancy	T&S
Evacuation of retained products	T&S
Hysterectomy-vaginal/abdominal	T&S
Hysterectomy-radical	2
Hysterectomy-radical with pelvic node dissection	4
Hysterectomy-total pelvic exenteration	6
Laparoscopic tubal ligation	T&S
Laparoscopy	T&S
Myomectomy	2
Oophorectomy/ovarian wedge resection	T&S
Tuboplasty	T&S
Uterine suspension	T&S
Vulvectomy-simple	T&S
Vulvectomy-radical	2

APPENDIX F

Laboratory Request Forms

The following are laboratory request forms to be used when tests/procedures are not available on CHCS.

BAMC Form 27a	Hematology
BAMC Form 109	Authorization for Autologous Transfusion
BAMC Form 622 NS	Bacteriology I
BAMC Form 805	Cytology Specimen Shipping Log
BAMC Form 810	Urinalysis
DD Form 572	Blood Donation Record
DD Form 2161	Referral for Civilian Medical Care
Standard Form 513	Consultation Sheet
Standard Form 515	Tissue Examination
Standard Form 518	Blood or Blood Component Transfusion
Standard Form 541	Gynecologic Cytology
Standard Form 546	Chemistry I
Standard Form 548	Chemistry III (Urine)
Standard Form 549	Hematology
Standard Form 551	Serology
Standard Form 552	Parasitology
Standard Form 553	Microbiology I
Standard Form 556	Immuno Hematology
Standard Form 557	Miscellaneous

APPENDIX G

Names and Synonyms of Laboratory Tests

11-DEOXYCORTICOSTERONE

11-DEOXYCORTISOL
COMPOUND S
DEOXYCORTISOL

17-ALPHA HYDROXYPROGESTERONE
17ALPHA HYDROXYPROGESTERONE
HYDROXYPROGESTERONE, 17-ALPHA
17HYDROXYPROGESTERONE
17 HYDROXYPROGESTERONE
17a-HYDROXYPROGESTERONE

17-HYDROXYCORTICOSTEROID PAN
17OH CORTICOSTEROID PANEL
17 HYDROXYCORTICOSTEROID PANEL

17-HYDROXYPREGNENOLONE
17OH PREGNENOLONE
17-OH PREGNENOLONE

17-KETOSTEROIDS 24HR
17-KETOSTEROIDS

18-HYDROXYCORTICOSTERONE
18-OH-CORTICOSTERONE
CORTICOSTERONE

1:1 COAG MIX STUDY(BAMC)

1HR CHALLENGE, PREGNANT
1HR GESTATIONAL DIABETES SCREEN
GTT 1HR
1HR GTT
O'SULLIVAN

24 HR URINE CALCIUM(PANEL)
CALCIUM
URINE CALCIUM
24 HR CA

24 HR URINE CATECHOLAMINES
CATECHOLAMINES, URINE 24HR PANEL
EPINEPHRINE
DOPAMINE
NOREPINEPHRINE

24 HR URINE CHLORIDE(PANEL)
CHLORIDE, 24 HR URINE PANEL

24 HR URINE CITRATE (PANEL)
URINE CITRATE PANEL
CITRATE URINE 24 HR PANEL

24 HR URINE COPPER (PANEL)
COPPER URINE 24 HR PANEL
COPPER

24 HR URINE CREATININE(PANEL)
24 URINE CREATININE
CREATININE 24HR URINE
URINE CREATININE, 24 HR

24 HR URINE GLUCOSE(PANEL)
24 HR GLUCOSE, URINE
GLUCOSE, URINE 24 HR PANEL
URINE GLUCOSE 24 HR PANEL

24 HR URINE MAGNESIUM(PANEL)
MG 24 HR URINE

24 HR URINE METANEPHRINE PANEL
METANEPHRINE, 24 HR URINE PANEL

24 HR URINE MICROALBUMIN
    MICROALBUMIN PANEL

24 HR URINE OXALATE PANEL(BAMC
    OXALATE

24 HR URINE PHOSPHORUS(PANEL)
    PHOSPHORUS 24 HR URINE
PANEL
    PO4

24 HR URINE POTASSIUM(PANEL)
    POTASSIUM URINE 24 HR PANEL
    POTASSIUM

24 HR URINE PROTEIN(PANEL)
    24 URINE PROTEIN
    PROTEIN 24 HR URINE PANEL
    PROTEIN

24 HR URINE SODIUM(PANEL)

24 HR URINE URIC ACID(PANEL)
    24 URINE URIC ACID

24 HR URINE UUN(PANEL)
    24 HR BUN
    UREA URINE 24 HR PANEL

24 HR URINE ZINC (PANEL)
    ZINC

2HR URINE AMYLASE PANEL (BAMC)
    AMY
    AMYLASE
    2HR URINE AMYLASE (BAMC)

5 HIAA URINE PANEL
    5-HIAA URINE
    HIAA
    24 HR URINE HIAA
    5-HYDROXYINDOLACETIC ACID
PANEL

5′-NUCLEOTIDASE
    5-NUCLEOTIDASE

A-1 ANTITRYPSIN PHENOTYPING
    ALPHA 1 ANTITRYPSIN
PHENOTYPE
    A-1-ANTITRYPSIN PHENOTYPE
    A-1 ANTITRYPSIN PHENOTYPE
    A1A PHENOTYPE

ABO/RH
    BB ABO/RH
    RH TYPING

ACETAMINOPHEN
    TYLENOL
    ACETAMINOPHEN LVL

ACETYLCHOLINE RECEPTOR AB
    ACETYLCHOLINE REC AB

ACETYLCHOLINESTERASE
    RBC CHOLINESTERASE
    ACETYLCHOLINESTERASE RBC
    CHOLINESTERASE I

ACID FAST CULTURE
    AFB
    MYCOBACTERIUM CX

ACID FAST STAIN
    TB SMEAR
    AFB

ACTH
    ACTH DEXAMETHONE SUPP
    ACTH METYRAPONE STIM

ACTIVATED PROTEIN C RESISTANCE
    HO ACTIVATED PROTEIN C
RESISTANCE
    PROTEIN C RESISTANCE
    PROTEIN C

ACUTE HEP B PANEL (BAMC)
    HEPATITIS
    HEP B PANEL ACUTE

ACUTE VIRAL HEPATITIS PAN(BAMC
    HEPATITIS

HEP ACUTE VIRAL PANEL (BAMC)

ACYCLOVIR
ZOVIRAX

ADENOSINE DEAMINASE

ADENOVIRUS AB
ADENOVIRUS ANTIBODY

ADRENAL AB
ANTI-ADRENAL AB
ADRENAL CORTEX AB
ADRENAL ANTIBODY
ADRENAL ANTIBODIES

AFP,TUMOR MARKER
AFP
ALPHA FETOPROTEIN, TUMOR MARKER
ALPHA FETOPROTEIN,TUMOR MARKER

ALANINE AMINOTRANSFERASE
ALT

ALBUMIN:CREATININE RATIO
ALBUMIN/CREATININE RATIO
URINE ALBUMIN/CREATININE RATIO

ALDOSTERONE 24HR
URINE ALDOSTERONE

ALK PHOS
ALP
ALK PHOPHATASE

ALKALINE PHOS ISOENZYMES
ISOENZYME PATTERNBOTH

ALPHA PGH
ALPHA-SUBUNIT-PITUITARY GLYCOPROTEIN HORMONES

ALPHA-1-ACID GLYCOPROTEIN
A-1-ACID GLYCOPROTEIN
ACID GLYCOPROTEIN

ALPHA-2-MACROGLOBULIN
A-2 MACROGLOBULIN

ALPRAZOLAM AND METABOLITE
XANAX

ALTERNARIA TENUIS IGE
RAST, ALTERNARIA TENUIS
ALTERNARIA TENUIS RAST

ALUMINUM, URINE
ALUMINUM, 24HR URINE
URINE ALUMINUM
ALUMINUM

AMINO ACIDS, QUAL (URN/PLASMA)
AMINO ACID FRACTIONATION, QUALITATIVE
AMINO ACIDS SCREEN (SK)
AMINO ACIDS FRACTIONATION

AMNIOTIC FLUID PANEL
AMNIOTIC AFP
AMNIOTIC CHROMOSOME

AMOEBIC TITER
E HISTOLYTICA HAI TITER
AMOEBIC ANTIBODY

ANDROSTENEDIONE
ANDROSTENE,3,17-DIONE

ANGIOTENSIN CONVERTING ENZYME
ACE
ANGIOTENSIN CONVERT ENZ

ANTI ENA PANEL
ENA
SSA/SSB
ANTI ENA
ANTI-ENA
EXTRACTABLE NUCLEAR ANTIGENS
ANTI-SSA

ANTI-SSB
ANTI-RNP
ANTI-SMITH
RNP/SMITH
SMITH/RNP

ANTI NUCLEAR AB PANEL
ANA
ANTINUCLEAR ANTIBODY
ANA PANEL

ANTI THROMBIN III ANTIGEN

ANTI-IGA AUTOANTIBODIES PANEL
IgA Autoantibodies

ANTI-JO ANTIBODIES
ANTI-JO
JO-1

ANTI-NEURONAL AB
ANTI-NEURONAL
ANTI HU
NEURONAL NUCLEAR (HU) AB
HU AUTOANTIBODY TEST
HU IMMUNOREACTIVITY

ANTI-PLATELET AB DIRECT
PLATELET AB, DIRECT
ANTI PLATELET
DIRECT PLATELET AB
ANTIPLATELET

ANTI-PLATELET AB,IND
ANTIPLATELET
CIRCULATING PLT AB
ANTI-PLATELET
ANTI PLATELET
PLATELET ANTIBODIES
INDIRECT PLATELET AB
PLATELET AB, INDIRECT

ANTI-RIBOSOMAL P PROTEIN, CSF

ANTI-THYROID PEROXIDASE AB
ANTI-TPO AB
295
TPO
ANTI TPO
5081
THYROID PEROXIDASE AB

ANTIBODY ELUTION

ANTIBODY IDENTIFICATION(BAMC)
AB IDENT(BAMC)
ANTIGLOBULIN PANEL(BAMC)
ANTIBODY TITER(BAMC)
ANTIBODY IDENTIFICATION PNL(BAMC)

ANTIBODY SCREEN
BB ANTIBODY SCREEN

ANTICARDIOLIPIN PANEL
CARDIOLIPIN AB
ACL
ACLA
ANTI CARDIOLIPIN BATTERY

ANTIGLOMERULAR BASEMENT MEMB
ANTI-GBM
ANTI-GOOD PASTURE AG
GOOD PASTURE AB
GLOMERULAR BASEMENT MEMBRANE
ANTIGLOMERULIN BASEMENT AB

ANTIMYOCARDIAL ANTIBODY
ANTI-MYOCARDIAL AB
ANTI MYOCARDIAL AB
ANTIMYOCARDIAL
MYOCARDIAL ANTIBODY
261RSL

APOLIPOPROTEIN A-I
APOLIPOPROTEIN A1

APOLIPOPROTEIN B

APOLIPOPROTEIN E GENOTYPE

APOLIPOPROTEIN EVALUATION(SK)
APT TEST (SPECIAL STAIN)

ARBOVIRUS AB BY IFA, SERUM
    961
    0961

ARBOVIRUS AB PANEL
    ARBOVIRUS ANTIBODY PANEL
    ARBOVIRUS
    ARBOVIRUS PROFILE
    WEE AB

ARGININE VASOPRESSIN (ADH)
    ARGININE VASOPRESSIN
    ADH
    ANTIDIURETIC HORMONE

ASO PANEL(BAMC)
    ASO
    ANTI DNASE B

ASPARTATE AMINOTRANSFERASE
    ISR AST
    AST
    SGOT

ASPERGILLUS FUMIGATUS IGE
    RAST, A FUMIGATIS
    A FUMIGATUS RAST
    ASPERGILLUS IGE RAST
    ASPERGILLUS FUMIGATUS RAST

ASPERGILLUS SP AB
    ASPERGILLUS ID
    ASPERGILLUS

ASPERGILLUS SPECIFIC AB PANEL
    ASPERGILLUS
    ASPERGILLUS ANTIBODY
    3269
    ASPERGILLUS ANTIBODY PANEL(SK)

ATRIAL NATRIURETIC HORMONE
    ANH
    ATRIAL NATRIURETIC FACTOR
    ANF
    ANP

AUTOLOGOUS DONATION
    BB AUTOLOGOUS DONATION

AUTOPSY

B BURGDORFERI CSF INDEX
    BORRELIA BURGDORFERI CSF INDEX
    LYME ANTIBODY CSF INDEX

B BURGDORFERI DNA, PCR
    LYME DNA, PCR
    BORRELIA BURGDORFERI DNA, PCR

BACT ANTIGENS PANEL
    BACTOGENS
    ANTDET
    BACTERIA ANTIGENS PANEL
    BACT ANTIGENS

BARTONELLA AB PANEL (TO CDC)
    B HENSELAE AB PANEL (TO CDC)
    B QUINTANA AB PANEL (TO CDC)
    BHENSELAE AB PANEL (TO CDC)
    CAT SCRATCH FEVER (TO CDC)
    CAT SCRATCH DISEASE (TO CDC)
    BARTONELLA

BARTONELLA HENSELAE CULTURE
    CAT SCRATCH DISEASE CULTURE
    B HENSELAE CULTURE

BASIC METABOLIC PANEL
    CHEM 8

BENZODIAZEPINES PANEL

BETA HYDROXYBUTYRATE
    BETAHYDROXYBUTYRIC ACID
    BETA HYDROXYBUTYRIC ACID

BETA-2 TRANSFERRIN

BETA 2 TRANSFERRIN
TRANSFERRIN, BETA-2
B2 TRANSFERRIN
BETA-2-TRANSFERRIN

BETA-2-MICROGLOBULIN
BETA 2 MICROGLOBULIN
B2-MICROGLOBULIN

BICARBONATE
HCO3

BILE ACIDS FRACTIONATION PANEL

BILIRUBIN
TOTAL BILIRUBIN
T BILI
TBIL
BILIRUBIN TOTAL

BILIRUBIN CONJUGATED
CONJUGATED BILIRUBIN
BILIRUBIN,CONJUGATED
DIRECT BILIRUBIN

BILIRUBIN DIRECT
DBIL
D BILI
DIRECT BILIRUBIN

BILIRUBIN UNCONJUGATED
INDIRECT BILIRUBIN
UNCONJUGATED BILIRUBIN
BILIRUBIN,UNCONJUGATED
BILIRUBIN, INDIRECT
BILIRUBIN

BIOTINIDASE

BLASTOMYCOSIS-CF
BLASTOMYCES AB, CF

BLOOD HEAVY METAL PANEL
ARSENIC
MERCURY
LEAD
HVM
BLOOD HEAVY METALS
HEAVY METALS BLOOD

BLOOD OVA & PARASITES
MALARIA
BLOOD PARASITES

BODY FLUID CELL COUNT PANEL
DIFF,BODY FLUID
CSF COUNT

BODY FLUID CRYSTAL EXAM
CRYSTAL EXAM

BORDETELLA CULTURE
CULTURE BORDETELLA

BORDETELLA PERTUSSIS DFA
BPERTUSSIS DFA
B PERTUSSIS DFA
PERTUSSIS

BORDETELLA PERTUSSIS FA
PERTUSSIS
B PERTUSSIS FA
BPERTUSSIS FA

BORDETELLA PERTUSSIS PANEL(SK)
11658
BPERTUSSIS PANEL
B PERTUSSIS
34259
PERTUSSIS

BRILLIANT CRESYL BLUE STAIN
CRESYL BLUE

BRUCELLA ABORTUS AB PANEL
BRUCELLA AB
BRUCELLA ABORTUS AB PANEL

BRUCELLA TITER
BRUCELLA ANTIBODY
BRUCELLA AB
BRUCELLA TITER

BUPROPION

WELLBUTRIN

C DIFFICILE TOX
CLOSTRIDIUM DIFFICILE

C-PEPTIDE
C PEPTIDE

CALCM/PHOS URINE PANEL (BAMC)
24 HR CALC/PHOS PANEL
PHOSPHORUS CALCIUM 24HR BAMC
CALCIUM PHOSPHORUS 24HR BAMC

CANCER AG 125
CA-125
CANCER ANTIGEN 125

CANCER AG 15-3
CANCER ANTIGEN 15-3
CA 15-3

CANCER AG 19-9
CA 19-9
CARBOHYDRATE ANTIGEN 19-9
CANCER ANTIGEN 19-9

CANCER AG 27-29
CA 27.29
TRUQUANT 27.29
CA 27-29
CA27.29 CHIRON/BAYER

CANDIDA ALBICANS AB
CANDIDA
CANDIDA ANTIBODY
CANDIDA AB

CARBAMAZEPINE
CARBAMAZEPINE LVL
TEGRETOL

CARBON DIOXIDE
CO2

CARBOXYHEMOGLOBIN
CARBON MONOXIDE
HBCO

CARCINOEMBRYONIC AG
CARCINOEMBRY AG
CEA
CARCINOEMBRYONIC ANTIGEN

CATECHOLAMINES PLASMA PANEL
PLASMA CATECHOLAMINES
EPINEPHRINE
NOREPINEPHRINE
DOPAMINE
TOTAL CATECHOLAMINES

CBC PROFILE
BLOOD COUNT
COMPLETE BLOOD COUNT

CBC/DIFF PROFILE (HEM/ONC)

CDC BASIC PANEL
T-CELL SUBSET
T CELL SUBSET
DODMIN

CENTROMERE AB
ACA
ANTI-CENTROMERE
CENTROMERE ANTIBODY (BAMC)

CHAGAS DISEASE PANEL(SK)
TRYPANOSOMA CRUZI, IFA
TRYPANOSOMA CRUZI AB PANEL

CHLORAMPHENICOL
CHLOROMYCETIN

CHLORDIAZEPOXIDE
LIBRIUM

CHLORPROMAZINE
THORAZINE

CHROMOSOME ANALYSIS FRAGILE X
FRAGILE X SCREENING
FRAGILE X SYNDROME
MARTIN-BELL SYNDROME

FRAGILE-X SYNDROME
SCREENING

CHRONIC HEPATITIS B PAN (BAMC)
HEPATITIS

CHRONIC VIRAL HEP PANEL (BAMC)
HEPATITIS

CK
CPK
CREATINE KINASE

CK-MB BATTERY(BAMC)
CKMB
CK-MB(BAMC)

CLINITEST

CLO TEST
HELICOBACTER PYLORI
(PRESUMPTIVE)
H PYLORI (PRESUMPTIVE)

CLOMIPRAMINE PANEL(QUEST)
ANAFRANIL

CLONAZEPAM
KLONOPIN
CLONOPIN
RIVOTRIL

CLOSTRIDIUM BOTULINUM TOXIN
BOTULISM

CLOT RETRACTION
CLOT RETRAC
HO CLOT RETRACTION

CMV BY PCR
CMV PCR
PCR CMV
CYTOMEGALOVIRUS PCR

CMV DFA
DFA

CMV IGG/IGM (WHMC)
CYTOMEGALOVIRUS IGG/IGM
PANEL

COAG PANEL (BAMC)
PT
PTT
APTT
BCOAG1
PT/PTT/INR

COAG PANEL + FIB (BAMC)
BCOAG2
PT/PTT/INR/FIB

COCCIDIOIDES TITER
COCCI TITER PAPPA

COLLAGEN CROSSLINKS - NLA
OSTEOMARK
OSTEX
N-TELOPEPTIDE CROSSLINKS
PANEL
URINE N-TELOPEPTIDE XLINK
PANEL
COLLAGEN N-TELOPEPTIDE
XLINK PANEL

COMP C1 EST INHIB FUNC
C1 ESTERASE INHIBITOR
FUNC(SK)

COMPLEMENT BATTERY
C3,C4
COMPLEMENT
C3C4

COMPLEMENT C1Q
COMPLEMENT COMPONENT C1Q

COMPLEMENT C1Q BINDING
C1Q BINDING
IMMUNE COMPLEX BY C1q
C1Q SOLID PHASE
C1Q SOLID PHASE BINDING
IMMUNE COMPLEX C1Q IGG (SK)

COMPLEMENT,TOTAL
    TOTAL COMPLEMENT

COMPREHENSIVE METABOLIC PANEL
    CHEM 12
    CHEM 13
    PROFILE COMPREHENSIVE

CORTISOL INSULIN TOLERANCE
    CORT INS TOL

CORTISOL
    CORTISOL AM

CORTISOL PT CHAL

CORTISOL STIM W/ CORTICOTROPIN
    CORTISOL STIMULATED WITH CORTICOTROPIN

CORTISOL STIM W/ CORTROSYN
    CORTISOL STIMULATED WITH CORTROSYN

CORTISOL STIM W/ DOPAMINE
    CORTISOL STIMULATED WITH DOPAMINE

CT IMMUNO SCREEN PANEL(BAMC) INPUT
    CT SCR
    ANTI-MITOCHONDRIAL
    SMA
    CT HEPATIC SCREEN PANEL
    AMA
    ANTI-PARIETAL CELL ANTIBODY
    ANTI PARIETAL CELL AB
    ANTI-MITOCHONDRIAL AB
    ANTI-SMOOTH MUSCLE
    APCA
    ASMA
    PCA
    AUTO ANTIBODY BATTERY
    CYTOPLASMIC AUTO ANTIBODY
    PARIETAL CELL ANTIBODY
    SMOOTH MUSCLE ANTIBODY
    ANTI SMOOTH MUSCLE ANTIBODY PANEL
    ANTI MITOCHONDRIAL ANTIBODY PANEL
    AUTOANTIBODY PANEL

CYCLIC AMP
    CYCLIC ADENOSINE MONOPHOSPHATE

CYSTICERCUS AB
    CYSTICERCUS ANTIBODY

CYTOLOGIC GYN
    PAP

CYTOMEGALOVIRUS CULTURE
    CMV CULTURE

CYTOMEGALOVIRUS DNA PCR
    CMV PCR

CYTOMEGALOVIRUS IGG/IGM (BAMC)
    CMV

CYTOPLASMIC AUTOANTIBODY PANEL
    ANTI-MITOCHONDRIAL AB
    AMA
    ASMA
    PARIETAL CELL ANTIBODY
    APCA
    ANTI PARIETAL CELL AB
    ANTI-SMOOTH MUSCLE
    CYTOPLASMIC AUTO ANTIBODY
    AUTO ANTIBODY BATTERY
    ANTI-PARIETAL CELL ANTIBODY
    PCA
    SMOOTH MUSCLE ANTIBODY
    ANTI-MITOCHONDRIAL
    SMA
    CT HEPATIC SCREEN PANEL
    CT SCR
    ANTI SMOOTH MUSCLE ANTIBODY PANEL
    ANTI MITOCHONDRIAL ANTIBODY PANEL
    AUTOANTIBODY PANEL

DEHYDROEPIANDROSTERONE 24HR
    DHEA URINE 24HR
    URINE DHEA

DELTA AMINOLEVULINATE 24HR
    ALA URN
    DELTA AMINOLEVULINIC ACID, 24HR URINE
    ALA, 24HR URINE
    AMINOLEVULINIC ACID

DENGUE FEVER ANTIBODY PANEL
    DENGUE VIRUS AB PANEL

DHEA SULFATE
    DHEA-S
    DEHYDROEPIANDROSTERONE SULFATE

DHEA UNCONJUGATED
    DHEA, UNCONJUGATED
    UNCONJUGATED DHEA
    DEHYDROEPIANDROSTERONE UNCONJ

DIAZEPAM
    VALIUM

DIGITOXIN
    DIGITALIS
    CRYSTODIGIN

DIGOXIN
    QUANTITATIVE SERUM DIGOXIN
    DIGOXIN LVL
    LANOXIN

DIHYDROTESTOSTERONE
    5-ALPHA DIHYDROTESTOSTERONE

DIL RUSSELL VIP VENOM TEST
    RUSSELL VIP
    RUS VIP VEN
    VIPOR VENOM TEST

DINITROPHENYLHYDRAZINE TEST
    BRANCHED CHAIN KETOACIDS

DIPHENHYDRAMINE
    DIPHENADRIL
    BENADRYL

DIPHTHERIA TOXOID AB IGG
    DIPHTHERIA ANTITOXOID AB
    DIPHTHERIA AB
    DIPHTHERIA ANTIBODY

DIRECT ANTIGLOBULIN TEST
    BB DIRECT ANTIGLOBULIN
    COOMBS DIRECT
    DAT

DISOPYRAMIDE
    NORPACE

DIURETIC SCREEN PANEL
    THIAZIDE SCREEN

DNA DOUBLE STRAND AB
    DOUBLE STRANDED DNA
    DNA
    ANTI DNA
    DNA DOUBLSTRAND AB SCREEN

DONATH-LANDSTEINER
    DONATH LAND
    HO DONATH-LANDSTEINER

DOXEPIN PANEL
    ADAPIN
    DESMETHYL DESIPRAMINE
    DESMETHYL DEXEPIN
    NORDOXEPIN
    SINEQUAN
    SINEQUIN
    DOXEPIN

DRUG DEPENDENT PLATELET AB
    SEROTONIN RELEASE ASSAY

EARLY B BURGDORFERI AB PANEL
    B BURGDORFERI PANEL (NICHOLS)
    LYME, EARLY AB PANEL (NICHOLS)

BORRELIA EARLY AB PANEL (NICHOLS)
EARLY B. BURGDORFERI

ECHINOCOCCUS SP IGG
ECHINOCOCCOSIS
ECHINOCOCCUS GRANULOSUS AB

ECHOVIRUS ANTIBODY PANEL
ECHOVIRUS AB
ECHOVIRUS PANEL

EHRLICHIA CHAFFEENSIS AB PANEL
EHRLICHIA AB PANEL

ELECTROLYTES PANEL
ELECTROLYTES
LYTES

ELECTROPHORESIS,SERUM PROT PNL
SPEP
ELECTROPHORESIS, SERUM PROTEIN

ELECTROPHORESIS,URINE PROT PNL
UPEP
BENCE JONES PROTEIN
ELECTROPHORESIS, URINE PROTEIN

ENDOMYSIUM AB IGA
ENDOMYSIAL AB,IGA
ANTIENDOMYSIAL AB, IgA
ENDOMYSIAL IGA AB
TISSUE TRANSGLUTAMINASE AB IGA

ENTAMOEBA HISTOLYTICA AB
E.HISTOLYTICA ABS
E HISTOLYTICA ABS
ENTEROVIRUS AB PANEL
COLORADO TICK FEVER
COXSACKIE B1-B6
POLIO ANTIBODIES

EPSTEIN BARR PANEL (BAMC)
EBV

EPV NUCLEAR AG IGG
EBV
EBNA
EBVNA
NUCLEAR AG, EBV
EPSTEIN BARR NUCLEAR ANTIGEN

ERYTHROCYTE PROTOPORPH
FREE ERYTHROCYTE PROTOPORPHYRIN
PROTOPORPHYRIN FREE ERYTHROCYTE
RBC PROTOPORPHYRIN
FREE RBC PROTOPORPHYRIN
ERYTHROCYTE PROTOPORPHYRIN

ESR
SED RATE
ERYTHROCYTE SEDIMENTATION RATE
ERYTHROCYTE SED RATE

ESTAZOLAM
PROSAM

ETHANOL
ALCOHOL MEDICAL
ETOH

ETHCHLORVYNOL
PLACIDYL

ETHOSUXIMIDE
ZARONTIN

EUGLOBULIN CLOT LYSIS
EUGLOBULIN LYSIS TIME
HO EUGLOBULIN CLOT LYSIS TIME

FACTOR II 20210 MUTATION PNL
PROTHROMBIN GENE MUTATION PANEL

FATTY ACIDS FREE
NON-ESTER FATTY ACIDS

FECAL LEUKOCYTES
    FECAL WBC

FERRITIN/IRON PANEL(BAMC)
    IRON
    FERRITIN

FIBRIN D-DIMER
    D DIMER (BAMC)

FIBRIN DEGRADATION PRODUCTS
    FIBRIN SPLIT PRODUCTS
    FSP

FLECAINIDE
    TAMBOCOR

FLM
    FETAL LUNG MATURITY
    AMNIOTIC FLUID FLM

FLOUNDER IGE
    RAST, FLOUNDER
    FLOUNDER RAST

FLU A VIRUS
    INFLUENZA
    INFLUENZA A

FLUOXETINE PANEL
    PROZAC

FLURAZEPAM
    DALMANE

FLURBIPROFEN
    ANSAID

FLUVOXAMINE
    LUVOX

FOLATE RBC
    RBC FOLATE
    FOLATE

FRANCISELLA TULARENSIS AB
    FRANCISELLA TULAREMIA
    TULAREMIA AB

FREE T4 BY DIALYSIS
    FREE T4

FSH/LH
    FOLLICLE STIMULATING AND LUTEINIZING HORMONE BATTERY

FTA CSF
    FLUORESCENT TREPONEMAL AB, CSF
    CSF FTA
    FTA-ABS

FUNGAL BLOOD
    CULTURE FUNGAL

FUNGAL EIA PANEL (BAMC)
    FUNGAL SEROLOGY
    CRYPTOCOCCAL (PANEL)

FUNGAL MISC
    FUNGUS CULTURE
    FUNGAL CULTURE
    CULTURE,MYCOLOGY
    CULTURE FUNGAL
    INDIA INK

FUNGAL SEROLOGY PANEL
    FUNGAL SEROLOGY
    FUNGAL ANTIBODY PANEL
    ASPERGILLUS
    BLASTO
    BLASTOMYCES
    HISTO
    HISTOPLASMA
    COCCI
    COCCIDIOIDES
    PATHOGENIC & OPPORTUNISTIC FUNGAL AB

FUNGAL SKIN
    CULTURE FUNGAL
    FUNGAL CULTURE
    CULTURE FUNGAL SKIN

FUNGUS MICROSCOPIC OB
    FUNGUS SMEAR

GABAPENTIN
NEURONTIN

GALACTOSE
GALACTOSEMIA

GALACTOSE-1-PHOSPHATE PANEL
GALACTOSE 1 PHOSPHATE PANEL

GAMMA GLUTAMYL TRANSFERASE
GAMMA GT
GAMMA GLUTAMYL TRANSPEPTIDASE
GTT

GANGLIOSIDE AB PANEL
GM1 TRIAD ANTIBODIES
GM1 GANGLIOSIDE ANTIBODIES

GANGLIOSIDE MONOSIALIC ACID
ANTI-GANGLIOSIDE MONOSIALIC
ANTI GANGLIOSIDE MONOSIALIC

GC CULTURE
GC
GONORRHOEAE CULTURE
N GONORRHOEAE
NEISSERIA
GONORRHEA

GC/CHLAMYDIA PROBE
GENPROBE
GC/CHLAM
GC/CHLAMYDIA PROBE PANEL

GENITAL CULTURE
URETHRAL CULTURE
CERVICAL CULTURE
VAGINAL CULTURE
GC
GENITAL
NEISSERIA
GONORRHOEAE CULTURE
N GONORRHOEAE
GONORRHEA

GIARDIA LAMBLIA AG
GIARDIA LAMBLIA ANTIGEN DETECT

GIARDIA LAMBLIA PANEL IFA
GIARDIA IFA

GLUCOSE
FBS
FASTING GLUCOSE

GLUCOSE 2H PT MEAL
2HR PP
2 HR PP
GTT 2HR PP
2HR POSTPRANDIAL GLUCOSE
2HR POST MEAL GLUCOSE

GLUTETHIMIDE
DORIDEN

HAEMOPHILUS INFLUENZAE B AB
H INFL IGG TYPE B
HEMOPHILUS INF B AB
HEMOPHILUS INFLUNAE B
INFLUENZA TYPE B AB

HALOPERIDOL
DECANOATE

HAM’S TEST
ACID HEMOLYSIS
PNH CONFIRMATORY
ACIDIFIED SERUM LYSIS TEST

HANSEL’S STAIN
URINE EOS
URINE EOSINOPHILS

HANTAVIRUS RENA SYNDROME AB
HANTAVIRUS PANEL

HAPC
HOSPITAL ACQUIRED PENETRATING CONTACT
NEEDLESTICK WORKUP

HBSAG CONFIRMATION

HBSAG NEUTRALIZATION
NEUTRALIZATION
HBSAG C
HEPATITIS
HBSAG CONF (BAMC, EPI)

HCV AB SUPPLEMENTAL PANEL
HEPATITIS C RIBA
HCV IMMUNOBLOT PANEL
HCV SUPPLEMENTAL
HEP C AB SUPPLEMENTAL
HEPATITIS C RIBA SUPPLEMENTAL PANEL

HCV RNA BY PCR, QNT PANEL
HEPATITIS C PCR QUANT (PANEL)
HEP C RNA BY PCR,QNT
HCV QUANTITIATIVE BY PCR
HCV RNA BY PCR,QUANT (SHIPOUT)
HCV RNA QUANT,PCR (SHIPOUT)

HELICOBACTER PYLORI IGG
H PYLORI IGG
HELICOBACTER PYLORI AB IGG

HEMOGLOBIN A1C
HGB A1C
A1C
GLYCOSYLATED HEMOGLOBIN
GLYCOHEMOGLOBIN

HEMOGLOBIN VARIANT PANEL
HEMOGLOBIN ELECTROPHORESIS

HEPATIC FUNCTION PANEL
LFT
CHEM HEPATIC PANEL
LIVER FUNCTION TEST

HEPATITIS A AB, TOTAL
ANTI HAV
HEPATITIS A TOTAL AB
HAVAB TOTAL

HEPATITIS B PCR QUANT

HEPATITIS B VIRUS BY PCR,QUAL
HBV PCR QUAL

HEPATITIS B VIRUS CORE AB
ANTI-HBC
HBCAB
HEPATITIS B CORE ANTIBODY TOTAL

HEPATITIS B VIRUS CORE IGM
HEPATITIS B CORE ANTIBODY IGM

HEPATITIS B VIRUS DNA
HBVDNA
HBV DNA
HBV DNA PCR
HEP B DNA,QNT
HEPATITIS B DNA,QNT
HEPATITIS B DNA BY HYBRID CAP

HEPATITIS B VIRUS SURFACE AB
HBsAg Ab
HBs Ab
HBSAB
POST HEPTAVAX
HEPTAVAX TITER
HEP B ANTIBODY TITER

HEPATITIS B VIRUS SURFACE AG
HBSAG
AUZYME
HEP B SURFACE AG
HEPATITIS B SURFACE ANTIGEN

HEPATITIS BE ANTIBODY
ANTI-HBE
HBeAb
HEP BE ANTIBODY

HEPATITIS BE ANTIGEN
HBEAG
HEP BE AG
HEP BE ANTIGEN

HEPATITIS C PCR QUAL

HEPATITIS C VIRUS BY PCR,QUAL
HEPATITIS C VIRUS BY PCR,QUAL
PCR-HCV QUAL
HEP C RNA BY PCR,QUAL
HCV RNA BY PCR,QUAL
HCV QUAL BY PCR

HEPATITIS C VIRUS AB
ANTI HCV
CHRONIC HEP C PANEL
ACUTE HEP C PANEL
HCV
HEP C VIRUS ANTIBODY

HEPATITIS C VIRUS GENOTYPING
HCV GENOTYPING (SHIPOUT)

HEPATITIS D VIRUS AB
HEPATITIS DELTA ANTIBODY
HEPATITIS DELTA AB

HERPES CULTURE
HSV CULTURE

HERPES DFA

HERPES I/II IGG PANEL
HERPESVIRUS HOMINIS
HERPES SIMPLEX, EIA
HERPES I/II TITER

HIV 1 AB
FORCE HIV
HIV-1 AB SCREEN
HIV AB SCR (WH/BAMC/BAFB)
HIV-1 AB

HIV-1 ULTRASENS VIRAL LOAD
HIV-1 VIRAL LOAD
HIV-1 RNA PANEL (ULTRASENS)
HIV-1 VIRAL RNA (ULTRASENS)

HOMOVANILLATE
HOMOVANILLIC ACID,RANDOM
HVA, URINE 24 HR
HOMOVANILLIC ACID, 24 HR URINE
HVA
HOMOVANILLIC ACID

HPV TYPING PROFILE
HUMAN PAPILLOMAVIRUS

HSV,TYPE 1 AND 2 DNA,PCR PANE
HERPES SIMPLEX 1/2,PCR
HERPES SIMPLEX VIRUS 1/2,PCR

IBUPROFEN
MOTRIN
ADVIL

IGA
IMMUNOGLOBULIN A

IGD
IMMUNOGLOBULIN D

IGE
IMMUNOGLOBULIN E

IGG
IMMUNOGLOBULIN G

IGM
IMMUNOGLOBULIN M

INSULIN AB
INSULIN ANTIBODIES

INSULIN, FREE AND TOTAL PANEL
INSULIN, TOTAL
FREE INSULIN

INSULIN-LIKE GF-I
INSULIN LIKE GROWTH FAC I

INSULIN-LIKE GF-II
IGF II
INSULIN LIKE GROWTH FACTOR II

INTESTINAL PARASITES
OVA AND PARASITES

INTRINSIC FACTOR BLOCKING AB
IF BLOCKING ANTIBODY
INTRINSIC FACTOR AB

ISLET CELL ANTIBODY
ANTI-PANCREATIC ISLET CELL AB

KETONE BODIES
KETONE
KETONES
ACETEST

KLEIHAUER-BETKE
FETAL HGB ACID ELUTION

L/S RATIO PANEL
LECITHIN/SPHINGOMYELIN RATIO
FETAL LUNG MATURITY

LACTATE DEHYDROGENASE
LDH

LE CELL PREP
LUPUS PREP

LEPTOSPIRA ANTIBODIES, EIA PNL
CANICOLA FEVER
FT BRAGG FEVER
LEPTOSPIROSIS AB
SWAMP FEVER
SWINEHERD'S DISEASE
WEIL'S DISEASE

LEUCINE AMINOPEPTIDASE
ARYLAMIDASE

LIDOCAINE
XYLOCAINE

LORAZEPAM
ATIVAN
SERUM ATIVAN
SERUM LORAZEPAM

LYME ANTIBODY
LYME AB
B BURGDORFERI
BORRELIA BURDORFERI AB

MAPROTILINE
LUDIOMIL

MEPERIDINE AND METABOLITE
DEMEROL
MEPERIDINE/NORMEPERIDINE

MEPHENYTOIN
MESANTOIN
NIRVANOL

MEPROBAMATE
EQUANIL
94269
EQUAGESIC
MEPROSPAN
MILPATH
MILTOWN
PATHIBAMATE
MEPROBAMATE(SK)

METHADONE
DOLOPHINE

MHA-TP
MHA TP
TREPONEMA
MICROHEMAGGLUTINATION
T PALLIDUM

MIDAZOLAM
VERSAD

MONOSPOT
HETEROPHILE ANTIBODY
MONO SCREEN
INFECTIOUS MONONUCLEOSIS AB

MUMPS/VARICELLA ANTIBODY
PAROTITIS EPIDEMICA ABS

NASAL SMEAR
EOS SMEAR-NASAL

EOSINOPHIL NASAL SMEAR

NEOMYCIN
MYCIFRADIN

NINHYDRIN TEST
AMINOACIDURIA

NITROSONAPHTHOL
TYROSINE

NMP-22
NUCLEAR MATRIX PROTEIN

NORDIAZEPAM
TRANXENE
CHLORZEPATE

OXAZEPAM
SERAX

OXYCODONE
PERCODAN

P-NITROANILINE TEST
METHYLMALONIC ACID

P53 TUMOR SUPPRESOR GENE
P53 ALLELOTYPING

PARA-AMINOBENZOIC ACID
PARAAMINOBENZOIC ACID

PARVOVIRUS B19 ANTIBODY PANEL
FIFTH DISEASE, HUMAN PARVOVIRUS AB
PARVOVIRUS B-19 AB (IGG,IGM)
HUMAN PARVOVIRUS B19 AB PANEL

PENTOBARBITAL LEVEL
NEMBUTAL

PEROXISOMAL PANEL
PHYTANIC ACID
VLC FATTY ACIDS
VERY LONG CHAIN FATTY ACIDS/PHYTANIC ACID
VLFA

PHENCYCLIDINE
PCP

PHENOBARBITAL
LUMINAL
ANTRACOL

PHENYTOIN
DILANTIN
DIPHENYLHYDANTOIN

PHERESIS PROFILE (PLT/WBC)

PHOSPHORUS
INORGANIC PHOSPHORUS
PHOSPHATE

PLASMA HEMOGLOBIN
HEMOGLOBIN PLASMA
FREE HEMOGLOBIN

PNEUMOCOCCAL POLYSACCH PNL
POLYSACCHARIDE PANEL
PREPNEUMOCOCCAL POLYSACCHARIDE AB
POSTPNEUMOCOCCAL POLYSACCHARIDE AB

PNEUMOCYSTIS CARINII AB
P CARINII TITER

PREGNANCY TEST,QUAL
HCG
HCG,SCREEN
BHCG, QUAL
BETA HCG, QUALITATIVE

PRIMIDONE
MYSOLINE

PRONESTYL PANEL
NAPA
PROCAINAMIDE

N-ACETYL-PROCAINAMIDE
PRONESTYL

PT/INR (BAMC)
PT
INR
COUMADIN
PROTIME

PTT
APTT
PARTIAL THROMBOPLASTIN TIME
ACTIVATED PTT

Q FEVER ANTIBODIES PANEL(SK)
COXIELLA BURNETTI AB PANEL

QUINIDINE
QUINAGLUSE
QUINAGLATE
CARDIOQUIN
DURAQUIN

R/O BETA STREP
BETA STREP GP B
CULTURE GROUP B STREP
RAPID STREP

R/O METH RESIST S AUREUS
METH RES STAPH
STAPH, METHICILLIN
RESISTANT

RAPID PLASMA REAGIN
SYPHILLIS
RPR
NONTREPONEMAL TEST
SYPHILIS SEROLOGY

RENAL FUNCTION PANEL
PROFILE RENAL
CHEM RENAL PANEL
CHEM 10

RIBOSOMAL P AB
ANTI RIBOSOMAL P
ANTI-RIBOSOMAL P

RIFAMPIN
RIFADIN

RISTOCETIN COFACTOR
VONWILLEBRAND RISTO
RISTOCETIN CO-FACTOR
VONWILLEBRAND RISTO COFACT

RMSF/TYPHUS IFA PANEL
ROCKY MOUNTAIN FEVER/TYPHUS

RSV ELISA
RESPIRATORY SYNCYTIAL VIRUS

RUBEOLA IgG (BAMC)
MEASLES IGG (BAMC)

SALICYLATES
ASA
ACETYLSALICYLIC ACID,BLOOD
ASPIRIN,BLOOD

SCLERODERMA ANTIBODIES(SK)
ANTIBODY TO Scl-70
ANTISCLERODERMA-70 AB
ANTI-SCL-70 (SK)
SCL-70

SEMEN ANALYSIS (PANEL)
FERTILITY WORKUP

SEROTONIN
5-HT
5-HYDROXYTRPTAMINE

SEX HORMONE BINDING GLOBULIN
TESTOSTERONE BINDING
GLOBULIN
ANDROGEN BINDING GLOBULIN

SPERM POST VASECTOMY
SEMENANALYSIS
POST VASECTOMY

SSA/SSB (BROOKS-EPI)
SJOGRENS AB
ANTI-SSA

ANTI-SSB

STONE ANALYSIS (PANEL)
RENAL CALCULI ANALYSIS
CALCULI, RENAL ANALYSIS

STREP PYOGENES AG
RAPID STREP
STREPTOCOCCUS PYOGENES ANTIGEN

STRIATED MUSCLE AB
ANTI-SKELETAL AB
ANTI-SKELETAL MUSCLE AB
ANTI-STRIATIONAL AB
SKELETAL MUSCLE AB

SUCCINYLACETONE
TYROSINEMIA TYPE I
SUCCINYL ACETONE

SUCROSE HEMOLYSIS
SUGAR WATER TEST
SUCROSE HEMOLYSIS TEST

SULFOSALICYLIC ACID
SSA

SWEAT CHLORIDE PANEL
SWEAT CHLORIDE

T4 FREE
FT4
FREE T4
THYROXINE, FREE
FREE THYROXINE

TB NUCL ACD AMPL
TUBERCULOSIS NUCLEIC ACID AMPLIF

TDT
TERMINAL DEOXYNUCLEOTIDYL TRANSFERASE ENZYME

TEMAZEPAM
RESTORIL

TETANUS ANTITOXIN AB IGG
TETANUS AB
TETANUS TOXOID IGG

THEOPHYLLINE
AMINOPHYLLINE,BLOOD
THEODUR

THIAMINE
VITAMIN B1
B1 VITAMIN

THIOCYANATE
NITROPRUSSIDE

THIOPENTAL
PENTOTHAL

THROAT CULTURE
CULTURE THROAT
STREP SCREEN

THYROID ANTIBODY PANEL
ANTI-THYROGLOBULIN AB
ANTI-THYROID MICROSOMAL
ANTI-MICROSOMAL ANTIBODY
MICROSOMAL AB
THYROGLOBULIN AB

THYROID STIM IMMUNGLOBULINS
THYROTROPIN RECEPTOR AB,SERUM
TSH RECEPTOR BINDING INHIBITORY IMMUNO
THYROID STIMULATING ANTIBODY

THYROTROPIN BINDING INHIB IGB
THYROID RECEPTOR ANTIBODY
THYROTROPIN-BINDING INHIBITORY IMMUNOGLOBULIN
TSH RECEPTOR BLOCKING AB

TOBRAMYCIN PEAK
NEBCIN

TOCAINIDE

TONOCARD

TORCH PROFILE

TOXIC SCREEN URINE PANEL(WHMC)
DRUG SCREEN URINE
URINE DRUG SCREEN

TRICYCLIC SCREEN LVL
DESIPRAMIN
NORTRIPTYLINE
IMIPRAMINE
AMITRIPTYLINE
NORPRAMIN
TOFRANIL

TRIFLUOPERAZINE
STELAZINE

TRIIODOTHYRONINE
TRIIDOTHYRONINE TOTAL

TRIIODOTHYRONINE FREE
FT3
UNBOUND T3
FREE T3

TRIIODOTHYRONINE REVERSE
TRIIODOTHYRONINE,REVERSE
REVERSE T3

TRIPLE MARKER
TRIPLE MARKER PROFILE
MSAFP/HCG/UE3 SCREENING

TROPONIN I CARDIAC
TNI

UPEP ELECTROPHORESIS PNL
UPEP
URINE PROTEIN
ELECTROPHORESIS

URINE HEAVY METAL PANEL
MERCURY
ARSENIC
LEAD

UROBILINOGEN 24HR

VALPROATE
DEPAKENE
VALPROIC ACID LEVEL

VANILLYLMANDELIC ACID PANEL
VMA

VARICELLA DFA
CHICKENPOX
HERPES ZOSTER
ANTI-VZV
VZV ANTIBODY
VARICELLA ANTIBODY

VASOACTIVE INTESTINAL PEPTIDE
VASOACTIVE INT PEPTIDE
VASOACTIVE INT POLYPEPTIDE

VITAMIN A
RETINOL

VITAMIN B-12 AND FOLATE LEVEL
B12/FOLATE
VITAMIN B12/FOLATE

VITAMIN B6
PYRIDOXIN
PYRIDOXAL 5-PHOSPHATE
FOLIC ACID

VITAMIN C
ASCORBIC ACID

VITAMIN D 1,25 DIHYDROXY
DIHYDROXY VITAMIN D 1,25
CALCIFEROL

VITAMIN D 25 HYDROXY
CHOLECALCIFEROL
25-HYDROXYVITAMIN D

VITAMIN E PANEL
TOCOPHEROL

VON WILLEBRAND FACTOR AG
FACTOR VIII AG
FACTOR VIII ANTIGEN

WARFARIN
COUMADIN

The proponent of this pamphlet is the Department of Pathology and Area Laboratory Services. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications) to Commander, Brooke Army Medical Center, ATTN: MCHE-PL, Fort Sam Houston, Texas 78234-6200.

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